

# BRITISH JOURNAL OF DERMATOLOGY

J. N. R. JONES, M.D.

## CONTENTS

### ORIGINAL ARTICLES

A Study of the Treatment of Syphilis in Children. *By J. N. R. Jones, M.D., D.Sc.*

The Effect of the Syphilis of the Mother on the Fetus. *By J. N. R. Jones, M.D., D.Sc., and J. N. R. Jones, M.D., D.Sc.*

The Effect of the Syphilis of the Mother on the Fetus. *By J. N. R. Jones, M.D., D.Sc., and J. N. R. Jones, M.D., D.Sc.*

The Effect of the Syphilis of the Mother on the Fetus. *By J. N. R. Jones, M.D., D.Sc., and J. N. R. Jones, M.D., D.Sc.*

The Effect of the Syphilis of the Mother on the Fetus. *By J. N. R. Jones, M.D., D.Sc., and J. N. R. Jones, M.D., D.Sc.*

### ASSOCIATIONS AND INSTITUTIONS

The British Association of Dermatologists. *By J. N. R. Jones, M.D., D.Sc.*

### NOTES BY LETTER

On the Treatment of Syphilis. *By J. N. R. Jones, M.D., D.Sc.*

### THE OUTLOOK

By J. N. R. Jones, M.D., D.Sc.

London: Baillière, Tindall and Cox

1, Abchurch Lane, E.C. 4, London, E.C. 4

Printed by the London and Westminster Printing Co., Ltd., 1, Abchurch Lane, E.C. 4, London, E.C. 4

Subscription price, 10s. 6d. per annum in advance

Single copies, 2s. 6d. per copy in advance

Advertisements, 10s. 6d. per line per week

THE JOURNAL OF THE

# SPYING GLASS

No. 101  
Vol. 101  
1912



Published by the  
Author

BEVERLY HILLS, CALIFORNIA  
PUBLISHED BY THE AUTHOR

# THE BRITISH JOURNAL

OF

## TUBERCULOSIS

---

Vol. XIV.

October, 1920.

No. 4.

---

### ORIGINAL ARTICLES.

#### A HOSPITAL-SCHOOL FOR THE TREATMENT OF SURGICAL TUBERCULOSIS IN CHILDREN.<sup>1</sup>

By T. HARTLEY MARTIN,

M.B., CH.B.,

Senior Medical Officer of the Hospital for Children, Leasowe, Cheshire.

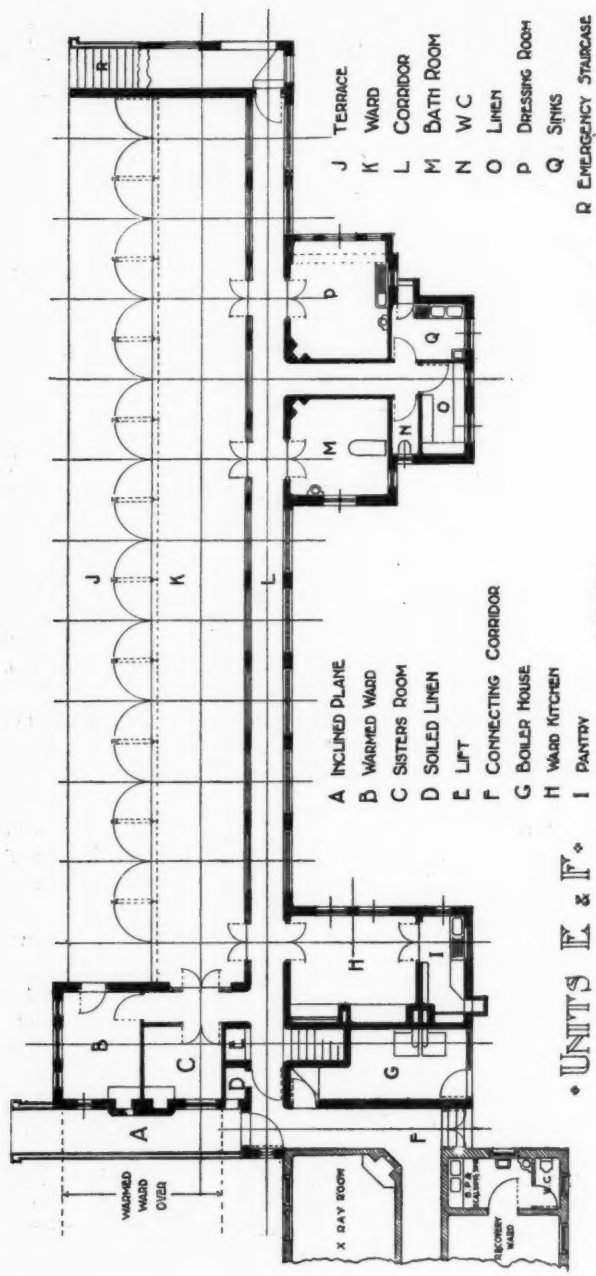
THE Liverpool Hospital for Children, Leasowe, Cheshire, is an open-air hospital-school for the treatment of non-pulmonary tuberculosis in children. It is situated on the Wirral Peninsula, ten miles from Liverpool, and owes its foundation to the combination of State aid and voluntary enterprise. The sympathy of voluntary enterprise, which led to the establishment of this institution, was awakened as a result of the endeavours of the Liverpool Invalid Children's Association. These made manifest the fact that in Liverpool alone hundreds of children suffering from surgical tuberculosis were being maimed and crippled for life by the impossibility of their securing adequate care in their own homes and by the lack of accommodation for such cases in the hospitals of the city. Special hospital accommodation was shown to be necessary.

When in 1912 the interim report of the Departmental Committee on Tuberculosis was published, in which the Local Authorities were urged to draw up a complete scheme for the extermination of tuberculosis in their areas, the Council of the Liverpool Invalid Children's Association, with the co-operation of Dr. E. W. Hope, O.B.E., Medical Officer of Health for the City of Liverpool, secured a grant of £90 a

<sup>1</sup> A very interesting illustrated 51-page brochure has been prepared by Dr. T. Hartley Martin, and is published under the title of "A Hospital-School for the Treatment of Surgical Tuberculosis." Copies may be obtained on application to the Hospital for Children, Leasowe, Cheshire. (Telephone: Wallasey, 1451.)—

EDITOR, B.J.T.

VOL. XIV.



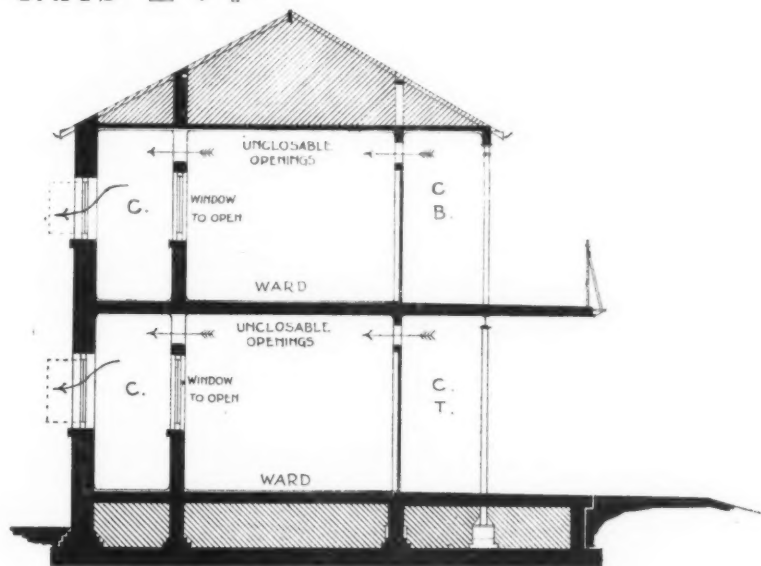
LIVERPOOL HOSPITAL FOR CHILDREN, LEASOWE: TYPICAL GROUND-FLOOR PLAN.



## TREATMENT OF SURGICAL TUBERCULOSIS 147

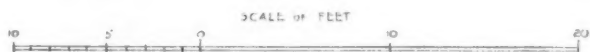
bed towards the cost of the erection of a hospital of 200 beds for the treatment of surgical tuberculosis. The necessary remaining funds were raised by voluntary subscription, and the building was commenced in 1913. In July, 1914, 100 beds were available, and the hospital was completed in 1916.

### ♦ UNITS E & F ♦



### ° SECTION °

·C. CORRIDOR· ·C.B. COVERED BALCONY· ·C.T. COVERED TERRACE·

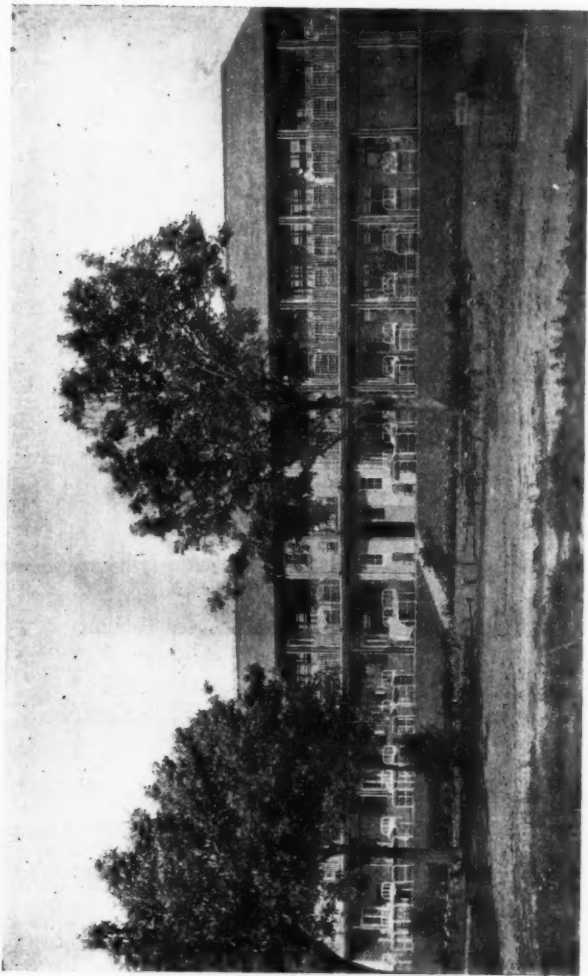


- T. W. MAIGH, ARCHITECT.  
- LIVERPOOL -

LIVERPOOL HOSPITAL FOR CHILDREN, LEASOWE :  
SECTION OF UNITS E AND F.

In choosing a site for a hospital of this nature the climatic requirements of the disease to be treated have to be borne in mind. Dr. Jacques Calvé, of Berck-sur-Mer, in his pamphlet on "The Importance of Maritime Hospitals in the Treatment of Surgical Tuberculosis," states that cases of surgical tuberculosis should be treated on open, barren, flat shores, which are exposed to the full force of the winds, and where

an equable temperature, moderate humidity, and abundant sunshine can be obtained. The hospital at Leasowe has been built within 300 yards of the sea, fully exposed to the winds which sweep from



LIVERPOOL HOSPITAL FOR CHILDREN, LEASOWE : A TWO-STORY BLOCK PAVILION, UNIT C.

the Irish Sea across an extensive tidal area. It is ideally placed to meet all climatic requirements.

The hospital is constructed on the block-pavilion principle, each block consisting of two stories, with twenty-four or thirty beds on each

## TREATMENT OF SURGICAL TUBERCULOSIS 149

floor. The wards face due south, and are light and airy, with excellent cross-ventilation. On the southern aspect they are provided with large glass folding doors which open on to roomy sun-balconies. On these



LIVERPOOL HOSPITAL FOR CHILDREN, LEASOWE: SUN BALCONIES.

balconies the beds are always maintained except in the severest of weather. The children are enabled to enjoy every available hour of sunshine.

The treatment of surgical tuberculosis is carried out on conservative lines, and comprises not only the adoption of such measures as are

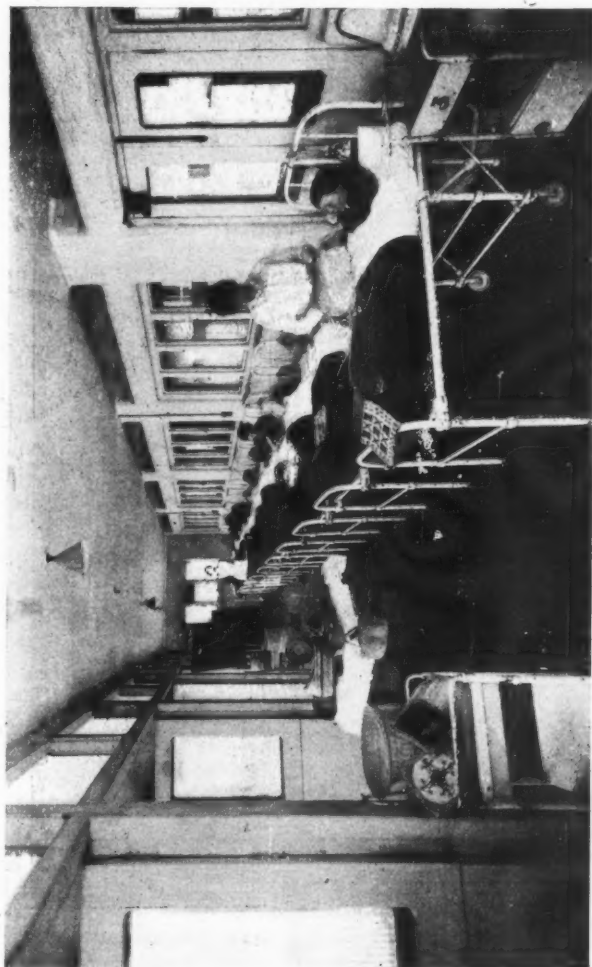
calculated to arrest the tuberculous disease, but also at the same time to ensure the carrying out of such orthopædic principles as will preserve the tissues of the parts or part attacked, in order that the function of



LIVERPOOL HOSPITAL FOR CHILDREN, LEASOWE: JANUARY SUNSHINE ON THE BALCONIES.

these structures may be restored. The more recent conception of tuberculous disease is that it is a generalized infection or invasion of the tissues of the body by the tubercle bacillus. The lesions involving

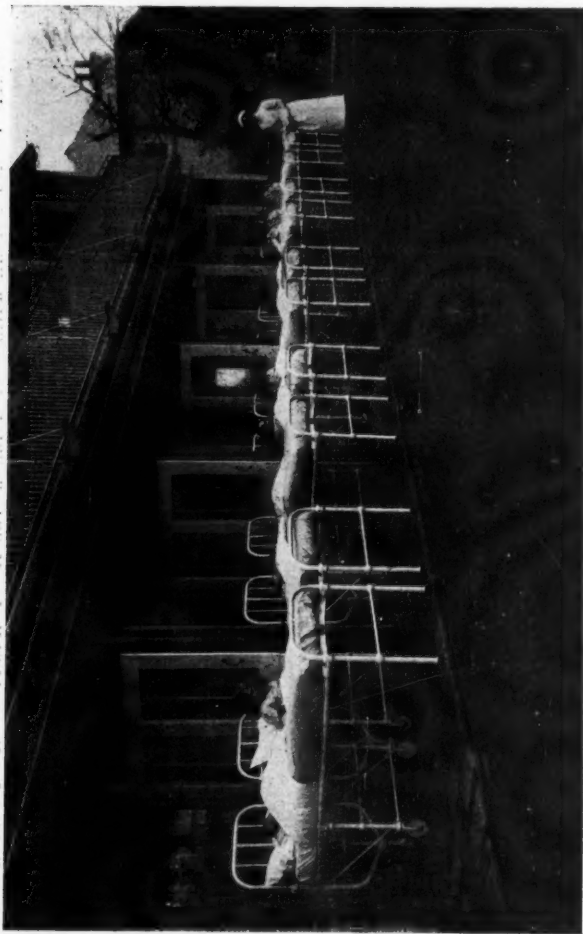
the bony, articular, and glandular structures are but local manifestations. It will readily be seen that in the absence of any specific treatment the destruction of the invading organisms can only be accomplished



LIVERPOOL HOSPITAL FOR CHILDREN, LEASOWE: INTERIOR OF A WARD DURING SCHOOL HOURS.

by improving the general health and bodily resistance of the patient. Abundance of fresh air, sunshine, and good food are the principal actors in such treatment; but when it is remembered that the treat-

ment of the local lesions demands long periods of immobilization and oftentimes rest in the recumbent position, it becomes imperative that



LIVERPOOL HOSPITAL FOR CHILDREN, LEASOWE : EXTERIOR OF WARD AND BALCONY IN WINTER TIME.

the provision of special arrangements should be undertaken along with skilled nursing in specially designed hospitals.

Concurrently with the general treatment undertaken to oppose the invading organism, special management of the local manifestations of the disease must be carried out. This can be described as consisting

of three stages: The acute, during which absolute physiological rest in the recumbent position, with immobilization of the diseased area, is demanded; the chronic, where, the progress of the disease having been arrested, recumbency is no longer compulsory, but immobilization must be maintained so as to allow repair to take place, and to prevent deformity from arising; the convalescent, during which complete immobilization is no longer necessary, and graduated exercises may be allowed.

Although the treatment has been described as consisting mainly of three stages, no generalization can allot any definite period of time to those respective stages; their duration, and that of the total time required to complete the treatment, varies in each case, and is influenced by such variable factors as the virulence of the infection, the site and extent of the disease, and the age and resistive powers of the patient.

Adjuvant measures of treatment are adopted according to the nature of the case and stage of the disease. The most important and the most universally employed is heliotherapy. Whatever be the explanation of the action of the sun's rays on the skin as a whole, and more especially on the subjacent localization of disease, there can be no doubt as to its beneficial action. The aim is to expose the whole body to the action of the sun's rays, and to produce a generalized pigmentation of the skin. The exposure is undertaken gradually in order that tolerance may be acquired, the whole body from the feet upwards being successively exposed to the sun; but when once the pigmentation has been established, prolonged exposure can be given, and is nearly always associated with marked improvement of the general health and a corresponding amelioration of the local conditions. The degree of pigmentation acquired in some cases may be taken as an indication of the progress towards recovery. X-ray therapy and, more recently, chemotherapy have proved of valuable help in dealing with the more superficial manifestations of disease.

The combination of school work with the hospital treatment of these cases has proved a great success. Many of the children prior to admission to hospital have been unable to attend school for a considerable time, and being considered invalids they have become the spoilt tyrants of their homes. Their habits are unnatural, they are destructive, and often melancholic. The very nature of the treatment during the acute and progressing stage of the disease, the enforced recumbency, restriction of movement, and the immobilization of the diseased areas, would tend to aggravate this condition were it not for the lessons and discipline of the school routine. Carefully planned school work can, and does, eliminate those tendencies, and the natural activities of the child can be directed into proper and healthy channels, and the monotony of the enforced recumbency relieved. There can be no

doubt that the three and a half hours' school tuition per day, by providing an occupation suitable to their mental needs, is a powerful aid to cure, and that the success resultant on the combination of education and medical care is another convincing argument in favour of the treatment of these cases in specialized hospitals.

The hospital at Leasowe is linked to the Liverpool Health Committee's scheme for the extermination of tuberculosis, through the Liverpool Child Welfare Association, which has access, through the courtesy of the Medical Officer of Health, to all cases of surgical tuberculosis reported, and which, through the channels of its almoner work, in the Out-patient Departments of the Liverpool hospitals, is in possession of valuable information about the home conditions of these children. From the offices of this association in Liverpool the cases are selected according to urgency, priority being given to cases of early disease. Again, through this executive body, the cases are followed to their homes after discharge from hospital, and much valuable information is gained by this after-care work and supervision in confirming the diagnosis of cure and in watching the progress of these cases in after life.

## PRINCIPLES INVOLVED IN THE SELECTION OF OCCUPATIONS FOR CONSUMPTIVES.

By P. C. VARRIER-JONES,

M.A., M.R.C.S., L.R.C.P.,

Tuberculosis Officer for the County of Cambridge, and Hon. Medical Officer  
of the Cambridge Tuberculosis Colony.

AND

SIR GERMAN WOODHEAD,

K.B.E., V.D., M.A., M.D., LL.D.,

Professor of Pathology in the University of Cambridge.

THERE has been no greater modification bearing on the treatment of cases of pulmonary tuberculosis than in that which takes into account not only the local lesion in the lung, but the general condition of the patient, physical and mental. The day has gone by when the only treatment applied depended upon a narrow interpretation of local physical signs, such treatment being prescribed merely on the interpretation of a fraction, and a comparatively small fraction, of a very complicated problem. It is now recognized that we must take into account the whole being of the patient, not only as regards his local



lesion, but his surroundings, his general physical condition, his moral tone, and his economic and social status. Once this is recognized, a study of occupations suitable (or otherwise) for consumptives comes to assume vast importance.

Although now and again one finds evidence of a more enlightened opinion in the medical press as to the trades most suitable for a consumptive, the old unthought-out advice to "seek a job in the open air" and pursue it is still offered and reiterated. Is not such advice but a duplex placebo applied, one part to the patient, the other to the physician, in order that after its application the case may be dismissed? Not a day passes but either a patient or his medical attendant gives expression to this platitude, and until such pernicious advice is made taboo both by the medical men and by the lay mind little advance in our treatment of the consumptive can be made. Marcus Paterson early pointed out that a light job means light wages at the end of the week; and to this may be added that a light job under these circumstances means loss of moral fibre. May it not now be accepted once and for all that there are no light jobs except those that bring light wages, and that light wages mean a gradual but sure descent into poverty, malnutrition, and misery.

Having once turned our back on the light open-air job, and having destroyed our previously conceived notions with regard to it— notions which have been built up partly of the advice given in the out-patients department, and partly on superficial observation when on holiday in the country—the mind is left clear to review the possibilities held out by various trades, and to study the principles on which we base our contention that certain trades are unsuitable for the consumptive.

On careful study of the various occupations carried out in this country, we see that the unsuitability of most of these occupations is due not to any merely superficial drawbacks, but to deep and underlying conditions, which are inherent in all commercial occupations and undertakings.

One is often asked whether such and such a trade is suitable for the consumptive? The answer to this question must be that it all depends upon the conditions under which the trade is carried out, and that these conditions can be modified only under very special circumstances merely increases the difficulty of the problem. That the conditions can be altered, with benefit to the consumptive, shows that it is not the trade *per se* that is injurious, but the manner in, and methods by, which it is carried on. It is not surprising that various trades have been condemned as unsuitable for consumptives, for under commercial conditions such trades undoubtedly are unsuitable; but once these commercial conditions are eliminated or modified the picture may undergo a change and the trade may become suitable, though, again we insist, any

scheme which contemplates the partial training of a consumptive in any trade—it matters not what—and returning him to carry it on under commercial conditions, is from the outset doomed to failure. If the man cannot carry on his original trade under commercial conditions—one in which he has received a long training and previous apprenticeship—it is, as has been proved over and over again, impossible to give him a partial training and condemn him to work at some other trade under similar unfavourable commercial conditions.

As a rule it is not the *trade* that is the stumbling-block: *it is the conditions under which that trade is carried on*. These conditions include much more than is included in what we understand by open-air conditions or open-air workshops. It is assumed by many that the solution of the tuberculosis problem consists in putting up open-air workshops in which men can work and earn a living, and that work can be done there simply because there is a greater supply of air. Nothing can be more erroneous. Fresh air is a part—a small but important part—of the complex of conditions which we have to ensure to the consumptive if he is to be enabled to carry on. Many of our modern factories are extraordinarily well ventilated and hygienic, for the laws relating to this are well thought out and administered, but we cannot but assert that, although this one condition is well met, work in a modern commercial factory is unsuitable to the consumptive. This we know by experience, but have we ever stopped to analyze the reasons for this? Look round any modern up-to-date factory with its noonday rest hour, with its system of welfare work and highly developed organization, and we shall find it difficult to put our finger on one single cause (taken by itself) which is definitely detrimental to the welfare of the tuberculous. But if we go into the question more carefully we find that there are many causes which, *acting together*, make for the disastrous results which we meet with, and which we all deplore. For the present let us leave out of account the home life of the patient.

First, let us take one condition of employment from which to illustrate the trend of the argument and the difficulties with which the consumptive has to contend. The method of payment is, as a rule, for the amount of work done in a given time. This is the incentive the worker has to produce a larger output. Human nature is such that without some incentive of this kind the output is not sufficient to ensure economical efficiency; payment by results, or piecework, however, is a factor extremely detrimental to the consumptive. With diminished physical and mental force (the latter must always be taken into consideration), but anxious to provide for himself and his family, he speeds up to such an extent that the work, although not to be described as actually laborious, produces a mental and physical fatigue distinctly hurtful to the patient. As regards the consumptive, there is no truer

saying than "it is the pace that kills," and whether the pace be the speeding up of work in a factory or of the rate of excitement in amusement, the result is the same. "Pace" increases mental anxiety, accounts for malnutrition, fatigue, and carelessness in living, all of which must be avoided in any work that is "suitable for a consumptive." It follows, therefore, that before any work can be classified as eminently suitable for consumptives, a whole set of conditions regarding it have to be passed under review; no hasty judgment is allowable or possible. It is comparatively easy to point out a case here and there as having done extremely well under the conditions of what appear to be those of the ordinary work-a-day world, but a peep behind the scenes enables one to see that only under the wing of philanthropy have the results obtained been possible. The few isolated cases which do well are accounted for by the term philanthropic or sympathetic employer, and that term is responsible for the complex of conditions (which will be enumerated later) favourable to the consumptive. As long as that complex is maintained the patient continues under ideal conditions and is able to hold his own. The longer the complex can be maintained the greater the chance to the patient of more or less permanent recovery should part of the complex cease to exist; do away with that complex, and sooner or later comes the inevitable breakdown. The problem, as far, then, as suitable trades for consumptives is concerned, is to find out a number of places where the conditions set up by a sympathetic employer can exist and be applied.

As we all know, these are few and far between, and must necessarily remain so under our present commercial and economic conditions. It is really inconceivable that human society can so readjust itself that it will be possible, on any extended scale, to pay a full day's wage for half a day's work, or to make it possible for a consumptive to enjoy the amenities of life for which he cannot afford to pay. It is for this reason—a fundamentally biological reason—that the proposal to build special well-built and well-ventilated houses in towns specially set aside for consumptives is bound to fail. The time must soon come when the unfortunates can no longer afford to pay for such accommodation, for Darwin's law of the survival of the fittest is as applicable to the human animal as it is to all other animal and plant life. Up to a certain point philanthropy will readily go; beyond this, human nature, as at present constituted, will not advance unless it can definitely see that it is to its own advantage to do so. It will go forward in this direction, however, if by so doing it can protect itself, for as a matter of self-protection it is ready to make certain sacrifices, but except to this end it has little interest in this matter.

This trend of public opinion is well exemplified by the attitude of Trades Unions to the various Government training schemes. The whole

matter is looked upon simply from the point of view of self-protection. On the face of it, it has a strong resemblance to personal jealousy, but it is something much deeper than that. Labour has no objection to the employment of consumptives in colonies, provided that certain stipulations which are all "labour-protecting" are agreed to. What it does object to is the possibility that consumptives may be trained and then thrown on to the labour market, there to obtain work for which a reduced wage may be paid by unscrupulous employers. Provided the man is employed in a colony and paid the current wage and the produce not sold at under-cut prices in the open market, no objections are raised. It is all a matter of self-protection; the consumptives must as regards employment be subject to general and natural laws.

To return to the question of a job in the "open air." In pre-war days and during the war the easiest method of employing a consumptive in civil life was to get him a place as a so-called gardener. Gardeners then had no union, there was no standard rate of wage, and any man with little or no training could camouflage his ignorance, and either take a small place or engage as a jobbing gardener on the outskirts of a town. As a matter of fact such a man seldom did any gardening at all. His was the rôle of the unskilled labourer doing as much unskilled work as possible—and that unskilled work, being done in a garden, was called gardening. Few men became gardeners in the true sense of the term. Gardeners as a class were exploited, and there was the opportunity for a consumptive to pick up what little rough and ready knowledge he could and earn what he was able. Close observation of these cases showed how precarious a living was obtained in this way. A few months (a few years in the case of a sympathetic employer) and then a bad relapse from one cause or another, and such relapsed cases coming to the notice of members of local Insurance Committees aroused the cry that sanatorium treatment is a failure. Something more, then, is needed than the casual employment now offered to the consumptive. But this "something more" is nearly the whole complex so long ignored because it was almost impossible of provision.

After-care committees—started with a flourish of trumpets—are now finding out how great are their difficulties. Their annual reports usually contain some such sentence as the following: "We have found considerable difficulty in securing suitable employment; through the generosity of — Esq., Mr. — has been provided with open-air work in his garden." Here, of course, the difficulty not only of providing employment but of obtaining the complex of conditions which make up a sheltered life confronts them. This complex consists of: (1) an environment free from a vitiated atmosphere; (2) employment at a pace which obviates both physical and mental fatigue; (3) economic conditions which

allow of ample remuneration for part-time work—in other words, the wages paid must be more than proportional to the working capacity of the individual, *i.e.*, they must meet the physical necessities not only of himself but of his family; (4) a mentality on the part of the patient to conserve his energy at play as well as at work, and to avoid excesses of all kinds. It will readily be seen that it is within our power to provide part of this complex, but not under the conditions of ordinary civil life in town or country. Much remains entirely under the control of the patient himself, and it is only with his fullest co-operation that good may be derived from that part of the complex which we are able to provide. This view of the question renders more easy of comprehension the old adage, No fool was ever cured of consumption—we might add: No fool ever will be cured. But it is a mistake to imagine that any form or system of treatment or training is going to cure consumption. We can only look to any such system to provide the means of prolonging life and—that period of life which is of most remunerative value to the State—of enabling the family of a consumptive to be so brought up and nourished that they may have a fair start in life and thus be less prone to succumb to infection.

It is clearly out of the question to make this provision for the consumptive working man in our large cities, but it is possible gradually to build up communities of consumptives where the complex of favourable conditions is available and where the patients are enabled to do good work and earn good wages for an indefinite period.

The interesting and crucial question, How long is this period of working capacity? cannot at present be answered. Figures are available, but these differ so astoundingly from those indicating the results obtained in the same area of patients living under the ordinary sanatorium régime and then return home to carry on that they would perhaps raise false hopes and aspirations. Suffice it to say that very accurate records are being kept and will be published when the numbers are greater and the length of time covered is sufficient to leave no doubt as to the fairness of the comparisons. That many trades can be carried on by consumptives with not only no detriment to their general health and with no contra-indication as to the arrest of the disease, but with very definite evidence of their value as therapeutic agents in the fight against tuberculosis is already amply proved, but these trades must be carried on under well-defined conditions, and in many cases certain processes as carried on in the trade in the outside world would have to be modified or even discarded or reversed. It thus comes about that in many cases there need be no alteration of the trade of the consumptive, though an alteration in the manner of following that trade may be imperative. In many cases a consumptive need not give up his calling. There need be no re-education in a new and

unaccustomed occupation—the trade itself must be adjusted to the man and not the man to the trade. Let his technical ability—often acquired during a long apprenticeship—have full play: it can never be replaced by a trade learnt in later life, and the ease with which certain processes in his own trade may be accomplished makes it all the more suitable for the disabled man, provided the adverse conditions attaching to the trade are removed. It is useless to go into minute detail for each trade. Each has to be carefully studied, always bearing in mind the main principles which underlie the whole problem.

## RACIAL DIFFERENCES IN SUSCEPTIBILITY TO TUBERCULOSIS.

BY COLONEL S. L. CUMMINS,

C B., C.M.G., LL.D., M.D.,

Professor of Pathology in the Royal Army Medical Corps College,  
Millbank, London.

WHILST engaged in an investigation into tuberculosis in the Egyptian Army in 1907, my attention was attracted by what was to me, at that time, an unexpected and highly interesting phenomenon, the association between high individual susceptibility to the disease and a tribal origin excluding all likelihood of previous contact with the tubercle bacillus.

In a paper published in this Journal in the following year<sup>1</sup> I showed that the incidence and mortality from this disease was very much greater amongst the Sudanese troops recruited from the remote regions of the Upper Nile than amongst the Egyptian soldiers conscripted from the fellaheen of the Delta. Evidence was produced to show that the disease was practically unknown in man or cattle in the Dinka and Shilluk countries, whence our best Sudanese soldiers were drawn, while it was relatively common in Egypt. The bearing of this observation upon the epidemiology of tuberculosis was at once evident, and on my return to England I continued to keep in touch with the literature bearing on this aspect of the disease. A few experiments in the use of the Von Pirquet test carried out at Netley Hospital in 1909<sup>2</sup> opened my eyes to the fact that individuals clinically free from all traces of the disease gave as high a proportion of positive reactions as a group of patients known to be suffering from tuberculosis, showing that these

<sup>1</sup> Cummins, S. L.: "Tuberculosis in the Egyptian Army." *British Journal of Tuberculosis*, Vol. II., No. 1, January, 1908.

<sup>2</sup> Cummins, S. L.: "On Surface Vaccination in Suspected Cases of Tubercle." *Journal of the Royal Army Medical Corps*, June, 1909.



apparently normal persons had been in contact with the tubercle bacillus, and I was thus led to study the records of the application of this test as a guide to the distribution of infection amongst "primitive" communities.

It was in this way that the significance of the work of Metchnikoff, Burnet, and Tarassewitch<sup>1</sup> amongst the Kalmucks came to my notice, bringing with it a full realization of the importance of "acquired resistance" as a factor in the limitation of the diffusion and the severity of the disease, and in a paper read before the Society of Tropical Medicine and Hygiene<sup>2</sup> in 1912 I attempted to call attention to an aspect of tuberculosis that deserves close attention in an Empire such as ours, with wide Colonial responsibilities and interests. In this paper I ventured to draw the following conclusions: "(1) That 'primitive' tribes are highly susceptible to tuberculosis because, in the absence of the tubercle bacillus, they have never been obliged to protect themselves against that organism; (2) that 'civilized' peoples are highly protected against tuberculosis because they have, in contact with the tubercle bacillus, elaborated protective substances against that organism."

The contention that the "virgin soil" theory is the real explanation of the admitted susceptibility of African and other primitive tribesmen when brought into contact with Europeans has sometimes been met by the suggestion that alcoholic excess, poverty, bad housing, poor food, and defective sanitation are equally likely to induce a high incidence in such individuals. The late war, however, afforded a unique opportunity for contrasting the susceptibility to tuberculosis shown by varying racial contingents, consisting of men of comparable age, living outside their original environment under more or less similar conditions of housing, clothing, and nutrition. The opportunity was not exploited as it might have been. War conditions and the never-relaxing strain upon medical services combined to throw great difficulties in the path of research. In the French Army an expert with every possible qualification for the work was specially detailed to investigate a question that was recognized as of vital importance, and to this circumstance we owe the invaluable observations of Dr. Borrel, which have recently appeared in the annals of the Pasteur Institute.<sup>3</sup>

In the British zone, the various native labour units working upon the lines of communication presented a similar problem, and the statistical records kept up in the office of Colonel (now Brig.-General)

<sup>1</sup> Metchnikoff, E., Burnet, E., and Tarassewitch: "Recherches sur l'Epidemiologie de la Tuberculose dans les Steppes des Kalmouks," *Ann. de l'Inst. Pasteur*, Vol. XXV., No. 11, November, 1911, p. 715.

<sup>2</sup> Cummins, S. L.: "Primitive Tribes and Tuberculosis," *Transact. Society Tropical Medicine and Hygiene*, Vol. V., No. 7, June, 1912, p. 245.

<sup>3</sup> Borrel, A.: "Pneumonie et Tuberculose chez les Troupes Noires," *Ann. de l'Inst. Pasteur*, Vol. XXXII., No. 3, March, 1920, p. 105.

W. W. O. Beveridge, C.B., the Assistant Director of Medical Services for Sanitation, show that the response of these susceptible individuals to contact with the degree of infection met with in camps and billets was comparable, in regard to morbidity and mortality, to that observed by Borrel among Senegalese troops. It will be some time before the information stored up in our Admission and Discharge Books, Card Index Records, and Case Sheets can be analyzed and made available. Some idea of the vast differences in susceptibility to tuberculosis shown by various racial communities represented in the fighting forces and labour contingents of the British Expeditionary Force in France will be gained by a glance at the following table.

TABLE SHOWING THE INCIDENCE AND MORTALITY OF TUBERCULOSIS IN B.E.F. IN FRANCE IN 1918.

	Annual Case Incidence per 10,000 of Average Annual Strength.	Annual Deaths per 10,000 of Average Annual Strength.
South African Native Labour Corps ...	186	167
Cape Coloured Labour Corps ...	444	88
Indian Native Labour Corps ...	142	53
Chinese Native Labour Corps ...	36	12
British Troops in France and Belgium	10	0.5

Absolute accuracy cannot be claimed for these figures, but there can be no doubt that they are sufficiently correct to justify very definite conclusions.

It will at once be evident that the incidence and mortality varies inversely with the degree of possibility of previous contact with the tubercle bacillus. The Africans, both the Kaffirs of the South African Native Labour Corps and the Cape Boys of the Cape Coloured Labour Corps, show an incidence and a mortality that can only be described as appalling. The Indian Native Labour Corps comes next, then the Chinese. The incidence and mortality amongst British troops, drawn from the almost universally "infected" communities of a highly organized and largely urban population, is relatively inconsiderable. Here there can be no question of alcoholic excesses, bad housing, insanitary surroundings, or unsuitable food. Colonel Beveridge, with a full appreciation of the importance of the danger of tuberculosis, obtained for the African and other native labour units the same air space as that allowed for British troops. Their rations were on a most liberal and suitable scale. Unlike the British soldiers, whose lives



were spent for the most part in the crowded "dugouts" and "shelters" of the battle line, these native contingents enjoyed the comparative comforts and amenities of the lines of communication and bases. The fact that every man was medically examined before leaving his own country excludes the possibility of the infection having preceded arrival in France in any but exceptional instances; and the rapid course of the disease and the much higher case incidence and death-rate in the second year of service with the British Expeditionary Force adds a further proof that the infection was acquired in France. Putting aside the obvious bearing of these facts upon the responsibility that devolves upon those who exploit "native" labour for industrial or military purposes, it is well to examine briefly their value as a clue to the solution of some of the outstanding problems of tuberculosis in general.

(1) The suggestion that there is an "hereditary tendency" more marked amongst the children of tuberculous parents than in the rest of the community must be seriously called in question in view of the extreme susceptibility shown by persons coming from a parent stock in which no tuberculous taint can have existed. The relatively high resistance amongst British troops, born in communities where tuberculosis is rife, adds to the necessity for reconsidering the conclusions drawn by Pearson from his statistical studies.<sup>1</sup>

(2) The essential factor in susceptibility would appear to be largely unconnected with race, but to depend rather upon an absence of acquired resistance to infection. This acquired resistance can only be attained by contact with the tubercle bacillus. It is probable that the diminution in the tuberculous death-rate so marked throughout Great Britain in the last fifty years has depended less upon the efforts of those engaged in "stamping out" tuberculosis than upon the natural processes of auto-immunization that have gone on coincidently with the developments of industrial life.

(3) While there should be no slackening of the effort to control the spread of tuberculosis infection, it should be clearly recognized that this infection is much more dangerous at certain periods of life and to certain individuals than to the community in general. Infants and young children are "virgin soil." Young adults from the Shetlands or from the Welsh mountains, or from the country districts of Ireland, are likely to run much greater risks in Glasgow, Cardiff, Dublin, and other large centres than do the permanent inhabitants of these towns.

(4) If the efforts of all those engaged in attempting to prevent the spread of tubercle bacilli, human and bovine, were so far successful as to ensure that every young man and woman reached the wage-earning period without any contact with the germ, it is possible that the whole

<sup>1</sup> Pearson, K.: "A First Study of the Statistics of Pulmonary Tuberculosis." London: Drapers' Company Research Memoirs, 1907.

population would end by being as susceptible to infection as are the African tribesmen in their native isolation. Contact with less progressive nations might then have disastrous results. This equivocal success is never likely to be attained, and we are quite safe in doing all we can to guard against infection. Our best efforts can hardly do more than ensure that the omnipresent tubercle bacilli shall be ingested in minimal "immunizing" doses, rather than in such quantities as to prove too much for the gradually developing resistance. The future of tuberculosis prevention lies in the deliberate exploitation of immunization by means of vaccinating doses of dead or attenuated bacilli. How this end is to be obtained is the prime question for research workers upon tuberculosis.

## TUBERCULOSIS OF THE EAR.

By DOUGLAS GUTHRIE,

M.D., F.R.C.S.,

Aural Surgeon to the Royal Hospital for Sick Children, Edinburgh.

THE delicate structures of the middle ear are most prone to be attacked by tuberculosis at the two extremes of a lifetime. We may encounter the disease during the period of infancy or during the last stages of pulmonary tuberculosis. In the latter case, the ear trouble is of the nature of a terminal infection, and is overshadowed by the graver primary lesion. The infantile type, on the other hand, is of much greater importance, as it is one of the disasters of infant life whose prevention and cure may be furthered by the work of the otologist. We may summarize the chief features under the following headings:

*Frequency.*—The extraordinary frequency of acute otitis media in infancy has been the subject of repeated comment. Post-mortem evidence shows that middle-ear infection is present in no less than 82 per cent. of all infants, whatever the cause of death. It may readily be understood that a structure so vulnerable to acute infection will frequently be the seat of tuberculous invasion.

*Age Incidence.*—The great majority of cases of acute otitis in infants undergo a natural cure—indeed, chronic otitis is a rare disease of infant life, apart from tuberculosis. It may even be said that the mere chronicity (duration over two months) of aural suppuration in a child under one year old should lead one to suspect its tuberculous nature. The writer has elsewhere reported a series of thirteen cases of aural tuberculosis, in all of which the disease had commenced during the

first year of life. Logan Turner has given details of sixty cases, and he states that one-half of the cases of suppurative otitis media in children under one year old are of tuberculous nature.

*Clinical Features.*—There are various signs and symptoms which enable one to differentiate between this disease and other forms of middle-ear suppuration. The onset is gradual, and, in striking distinction from acute otitis, is unaccompanied by pain. The mere presence of discharge from the meatus may be the first sign which is noticed. It is said that the tympanic membrane frequently shows more than one perforation. In all cases, the lymphatic glands around the ear—overlying the parotid region and mastoid process, and below and behind the sternomastoid muscle—are enlarged, and may also be the seat of caseation and abscess formation. Facial paralysis is found in about 50 per cent. of the cases, a fact which may be readily understood when one recollects the intimate relation of the seventh nerve to the middle ear, a relationship all the more intimate during infancy, when the wall of the bony "aqueduct of Fallopius" is incomplete.

*Etiology.*—Although a number of observers regard middle-ear tuberculosis as primarily a bone disease, the majority believe that it originates in the same way as other forms of otitis media—namely, by the passage of infection from the naso-pharynx to the ear by way of the Eustachian tube, which, during early life, is relatively shorter, wider, and straighter than it is in the adult. Very probably the original seat of infection is the pharyngeal tonsil (adenoid), and histological evidence of tuberculosis has often been found in adenoids. According to various writers, from 12 to 20 per cent. of adenoids are tuberculous. There can be little doubt that the infection is in most cases milk-borne. In the thirteen cases already mentioned, the mode of feeding was noted in eleven. Unboiled milk had been used in nine cases, breast feeding in one case, and bottle feeding with boiled milk in one case.

*Treatment.*—Operative treatment is indicated in all cases, and should consist in the performance of the radical mastoid operation. Frequently it will be found impossible, without endangering life, to remove all the diseased bone. Prognosis varies according to the environment and social condition of the patient. Well-tended infants do well after operation, and one of the patients of the above series is now a healthy boy of five years, the ear having become dry and the facial paralysis cured. After-treatment on sanatorium lines would appear to be of prime importance.

## THE CAMPAIGN AGAINST TUBERCULOSIS IN WALES.

By D. W. EVANS,

Director of the King Edward VII. Welsh National Memorial Association for the  
Prevention, Treatment, and Abolition of Tuberculosis.

"You have been honoured to-day by the presence of the King, and you have here a sanatorium fit for a King to open." These words were used by the Minister of Health, the Right Hon. Christopher Addison, M.D., M.P., at a luncheon given by the President of the King Edward VII. Welsh National Memorial Association on the day that the South Wales Sanatorium, near Talgarth, Breconshire, was opened by the King.

The same words might be said of the North Wales Sanatorium which His Majesty opened on the previous day, July 16. These two sanatoria between them provide 538 beds, and form parts of the machinery erected by the association in connection with the Welsh campaign against tuberculosis. The whole equipment consists of (a) the division of Wales and Monmouthshire into fourteen dispensary areas, with a tuberculosis physician, having a central dispensary in each area. In some areas there are also assistant tuberculosis physicians. In each area there are a number of visiting stations at which the patients are seen and examined, in most cases once a week, but in some cases once a fortnight. There are more than ninety of such visiting stations. (b) The provision of hospital beds at which both pulmonary and non-pulmonary cases are treated. These hospitals must be regarded as entirely separate and distinct from the sanatoria. They are located as follows:

District.	No. of Beds.
Llangefni, Anglesea ... ..	22
Brynseiont, Carnarvon ... ..	38
Meadowslea, Flintshire ... ..	23
Tregaron, Cardiganshire ... ..	32
Cymla, Glamorganshire ... ..	46
Ogmore Vale, Glamorganshire ... ..	16
Pontsarn, Merthyr Tydfil ... ..	38
Glan Ely, Cardiff ... ..	180
Cardigan House, Newport ... ..	31

At Beechwood, Newport, are 47 beds for discharged service men only. The association is proposing to erect additions at Meadowslea to bring up the number of beds to 50. It is also proposed to proceed with the erection of new hospitals at Pontypool Road, Monmouthshire, for 100

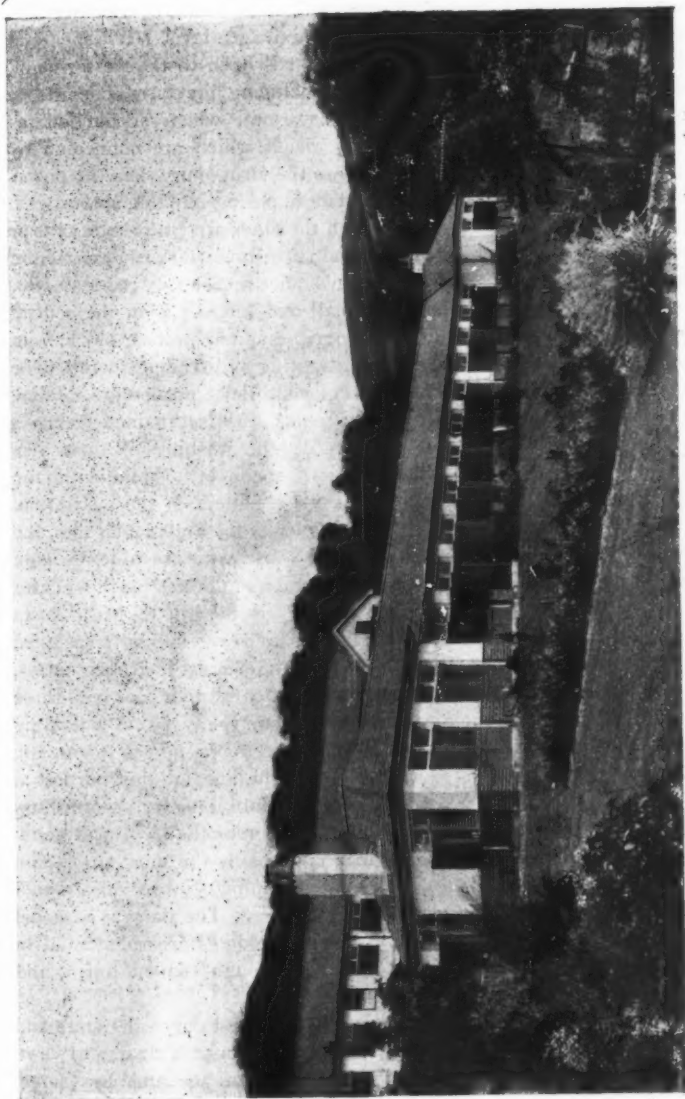


NORTH WALES SANATORIUM, NEAR DENBIGH : GENERAL VIEW.

cases, at Swansea for 80 patients, and at Machynlleth, Montgomeryshire, for 32 patients. (c) Sanatoria have been founded at various centres. The North Wales Sanatorium is near Denbigh, and is for women with both pulmonary and non-pulmonary tuberculosis. There are 234 beds. The South Wales Sanatorium, Talgarth, Breconshire, is for men, with 304 beds. The West Wales Sanatorium at Llanybyther, Carmarthen-shire, is for women and children, and has 50 beds. The Penhesgyn Sanatorium, Anglesea, is reserved for girls, and has 16 beds. (d) A farm colony is also in existence, with 50 beds, for discharged service men. It is conducted in connection with the South Wales Sanatorium. (e) An educational campaign is being carried on throughout Wales, whereby lectures are being delivered in all the elementary and secondary schools in the Principality. The Superintendent of Education is Dr. R. Owen Morris, M.A., M.D., D.P.H., F.R.S., who himself also delivers lectures in various parts of Wales from time to time.

The post of Chief Medical Officer to the Association is at present vacant, and the Council of the Association has adopted the principle whereby such Chief Medical Officer should become the Professor of Tuberculosis at the Welsh National Medical School. A sum of £12,500 has been generously offered to the Association for the Association in turn to hand over to the authorities of the Welsh National Medical School for the purpose of founding a Chair for Tuberculosis in that school, and the Association will have the right to nominate the first professor and have a voice in the selection of his successors. A special sub-committee, consisting almost wholly of medical men, is now engaged in considering the selection of a suitable gentleman to that position. When he has been appointed, one of the first things to which his attention will be given will be the consideration of a report prepared by a sub-committee appointed to consider the whole question of research. That committee advocated the appointment of a research bacteriologist, a radiologist, and a statistician. There is an enormous amount of material available, as may be gathered from the fact that the Association's medical officers have, during the last seven years, dealt with almost 70,000 cases.

The North Wales Sanatorium at Llangwyfan, near Denbigh, which His Majesty the King recently opened, stands on a site which was presented to the Welsh National Memorial Association by Sir David S. Davies, M.P., who purchased the lands for the purpose. In 1913 the Association invited architects to submit designs in competition, and in response thirty-one sets were sent in and adjudicated upon by Mr. E. T. Hall, architect, of London, who has designed and carried out the South Wales Sanatorium at Pontywal, near Talgarth. Mr. Hall selected the design of Mr. T. Taliesin Rees, F.R.I.B.A., Liverpool, who was



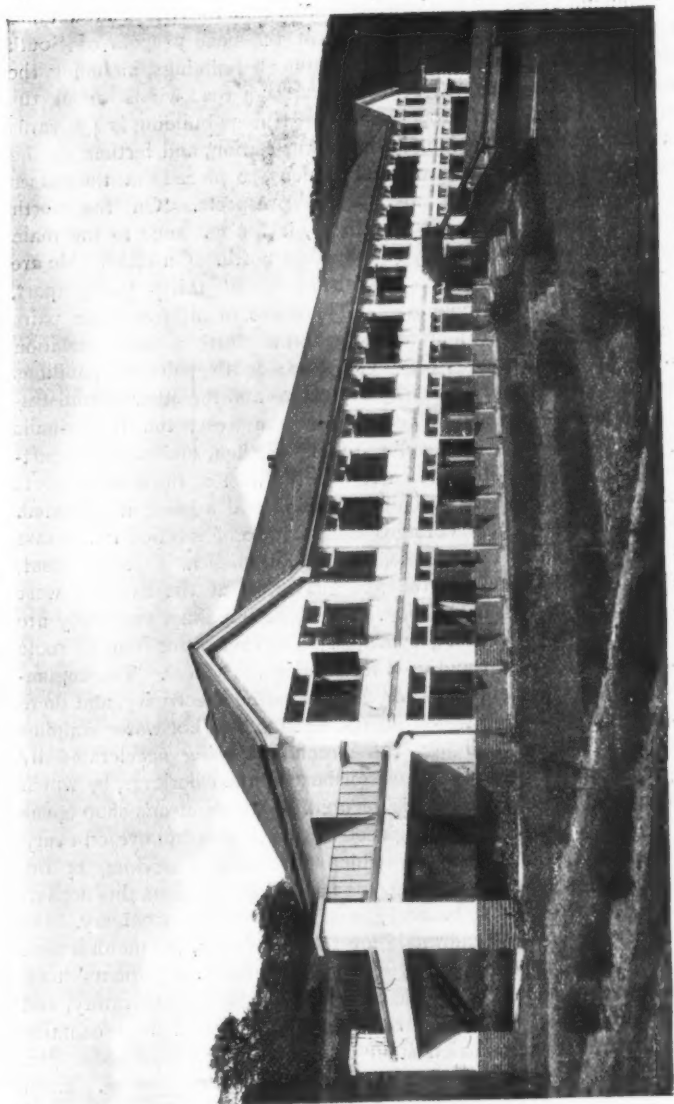
NORTH WALES SANATORIUM, NEAR DENBIGH: A NURSING PAVILION.



entrusted with the carrying out of the work. The site is situated on a slope of the Moel Fammau Range, and faces south, overlooking the Vale of Clwyd from a height of 500 feet above sea-level. It is sheltered from the easterly and northerly winds, but is open to the westerly and north-westerly breezes. The estate, including the farm, consists of fourteen separate blocks. The sanatorium, which accommodates 240 patients, comprises ten blocks, all of which are connected by corridors, in addition to which there are the farm, dairy, and the power station. The administrative block is an imposing building with a well-designed entrance porch, and although the lines are simple the note is very pleasing. It contains the medical superintendent's rooms, waiting and examination rooms, office, matron's office and sitting-room, nurses' rooms, and bedrooms. The dining-hall and kitchen is in the central block, and is approached directly from the administrative block from either end. In this block are also the writing and reading rooms. The kitchens and corridors are lined with glazed bricks, as also are larders, stores, sculleries, and dish-washing rooms, the last named being a special feature. As all the patients do the washing of their own crockery and cutlery, each dish, knife, fork, spoon, etc., is numbered, the patient retaining the same number whilst a patient in the institution. There are two nursing blocks and two blocks for ambulant cases, the former for bed cases and the latter for those who are able to walk about. There is also an isolation block and a children's block for cases requiring special care. The surgical block is the gift of Miss Nesta Davies, daughter of Sir David S. Davies, and was specially designed by Mr. Rees, under the direction of Major-General Sir Robert Jones, of Liverpool. It accommodates forty patients, and contains three open-air wards, sun room, anæsthetic room, X-ray room, operating theatre, recovery rooms, plaster rooms, chart room, nurses' room, etc. The whole place is provided with electric light, and for this purpose a power-house has been erected, over which are laundry, disinfecting rooms, sputum laboratory, etc. Only a portion of the new farm buildings have been erected. The shippon is probably the most up-to-date building of its kind in Wales, and, from a farming point of view, is well worth a visit by those interested in agriculture. The dairy is a model of what a small dairy should be. All the buildings are substantial in character, being constructed of brick, with rough cement finish, and coloured white.

The South Wales Sanatorium consists of the Pontywal Estate and buildings purchased for the Pontywal Sanatorium at Talgarth to serve South Wales. The estate consists of between 300 and 400 acres, rising in beautiful undulations to hills of considerable height. The old mansion stands on a terrace, and south of it the open park, sheltered by trees, falls steeply to the road. This is the site of the new





NORTH WALES SANATORIUM, NEAR DENBIGH : A PAVILION FOR AMBULANT PATIENTS.

sanatorium. All the buildings, rising one above the other, face south, and command views of the Brecon Range and the Black Mountains, and the situation is regarded as one of the beauty spots of South Wales. There are altogether about eighteen buildings, including the mansion, and there are 304 beds. A carriage road winds among the trees to the sanatorium proper, and the nearest building is 450 yards from the road. On the right is the power-station, and farther up the nurses' home, with tennis-lawn and gardens, so placed that the nurses off duty may enjoy rest and bright prospects. On the north and separated by a large circular drive, is the entrance to the main open corridor or covered way running due north. On either side are the patients' pavilions, each pair being about thirty yards apart, and looking over the mountains. There are in all five such pairs for ambulant patients, and at the extreme north a small isolation pavilion for infectious cases. The three south pairs of pavilions are separated from the others by the offices and the other administration buildings. The staff offices are on the west; the dining-halls for patients and staff, the reading-rooms, kitchen, and stores department, etc., are grouped to the east. To the west of the staff offices is the hospital block, where patients requiring bed nursing are located. A recreation hall and two cottages are in course of erection to the east of the pavilions. The residence of the medical superintendent, separated by a wood from the sanatorium, is at the extreme west on a site commanding extensive views. The buildings externally are white, with roofs of Welsh grey slates. The rain-water from all roofs is brought to a reservoir and used for feeding the boilers. The engine-house contains two sets of plants for generating electricity, and there are two calorifiers from which all the heating and hot-water supplies are carried to every building, the circulation being accelerated by pumps. Exhaust steam is utilized for heating the calorifiers, by which means a great economy in fuel is secured. The engineer's shop opens from this house, so that the engineer is able to keep an eye on every vital part of the machinery on which the efficient working of the sanatorium depends. A large accumulator-house adjoins this department, and above it is the laundry, fitted with modern machinery. On the other side of the quadrangle are the disinfecter, the motor-house, workshops for carpenter, painter, and shoemaker, a patients' tool-house, the mortuary, post-mortem room, pathological laboratory, and sputum sterilizing room. At the west side the first floor contains bedrooms for the unmarried staff, with sitting and bath room, etc. The nurses' home is designed so that every room gets sunshine. Each nurse has her separate bedroom, and there are common, sitting, and writing rooms, ample bathrooms, etc., and the matron has her separate suite of rooms. The ambulant pavilions are constructed of a special type of ferro-concrete, perfectly smooth inside and out, and distem-

pered. There are generally separate rooms for twenty-five patients in each pavilion. At the entrance and from the central corridor are annexes containing bathrooms, lavatories, coal and boot-drying rooms, larder, and linen-rooms. Every room opens on to a terrace, so that every bed may be brought out. The covered way to all is on the north side. The children's pavilion differs from the others in that each room is for four children, and to allow of easy supervision there are glass doors from one to the other. The administration offices consist of waiting-hall, medical superintendent's consulting, examination, and X-ray rooms, matron's office, dispensary, and waiting-room, and the first floor is the steward's residence complete. The hospital is two-storied, and has a main central block facing south, with advanced wings at an obtuse angle. There are verandahs on the ground floor and balconies on the first floor. There is a spacious hall at each end containing a staircase, and from this enclosed corridors lead to all rooms. There are one, two, and four-bed wards, and in the centre of each floor a day-room, a duty-room, etc. A novel feature is the specially designed tank for filling and heating hot-water bottles. At each end on the north are sanitary towers with bathrooms and the usual offices. The patients' dining-hall is 72 by 30 feet, and 17 feet high, with a vaulted ceiling, lighted by windows on all sides, with a platform recessed on the west. Off the hall are reading and writing rooms, and a large linen store. Meals are served at two heated carving tables, and food is brought direct to these from the back. There are large washing-up rooms for patients' plates, etc., and each patient has a separate place for plate, knife, fork, and spoon, with a towel attached, all in special fittings near the sinks. The kitchen is fitted with steam-jacketed pans, ovens, tea infusers, porridge boilers, etc., and opens into the separate serving-rooms attached to the dining-rooms for the patients, for the nurses, the maids, and the men. A bread oven and flour stores, larders, refrigerated store for meat and milk, and a milk sterilizer are provided. The general store is a large department for every equipment required, and has steward's office, sample-room etc. There is a recreation hall for general assembly, and a billiard-room, and it is intended later to add a large gymnasium. The cottages for married men are in the form of bungalows, with living-room, parlour, and three bedrooms, with bathroom, etc. The buildings were begun before the war, and were completed during the war, so as to be available for nursing sick soldiers. The little village of white buildings with their grey roofs nestling on the greensward and beautiful trees affords an ideal place for man to recover from the ravages of tuberculosis. The architects were Mr. Edwin T. Hall, F.R.I.B.A., F.R.San.Inst., and Mr. E. Stanley Hall, M.A., F.R.I.B.A., of Bedford Square, London. The general contractors were Messrs. Arnold and Son, of Doncaster.

## ASSOCIATIONS AND INSTITUTIONS.

### THE MOUNT VERNON HOSPITAL FOR TUBERCULOSIS.

AMONG the great national institutions maintained by voluntary efforts for the relief of tuberculous patients this institution occupies a foremost place. It was established in 1860 at Hampstead. In 1904 the Northwood branch was opened, and here since 1913, when the Hampstead centre was handed over to the Medical Research Committee, the in-patient work of the hospital has been concentrated. The out-patient department and London offices are at 7, Fitzroy Square. Shortly



before the outbreak of war plans were prepared and foundations laid down for a new block at Northwood for women and children. The chief features of the proposed buildings are shown in the accompanying illustration. Existing conditions have for the time being prevented the development of the extension, but it is hoped that progress will not have to be long delayed. On July 8 Princess Beatrice visited the hospital, and in connection with its summer fête unveiled in the central hall of the institution a fine memorial to the founder of the building at Northwood, the late Mr. C. D. Rudd.

*Mount Vernon Hospital  
Northwood.  
View of New Wing.*



*Interior View of the new  
Hospital, Northwood.  
J. C. H. 1884*

### FAIRFIELD SANATORIUM, YORK.

THIS institution was formally opened by the Lord Mayor and Lady Mayoress of York on June 2, 1920. The old mansion, which forms the chief building, with its thirty-two acres of grounds, was purchased in 1918 by the City of York. Various alterations have been carried out



FAIRFIELD SANATORIUM, YORK: CENTRAL BUILDINGS.

providing three wards for men, two for women, and three for children. There are also dispensary, staff quarters, kitchen, stores, etc. The accommodation is supplemented by a number of single bed shelters which are placed in the grounds, so increasing the total to fifty-four



FAIRFIELD SANATORIUM, YORK: SLEEPING SHELTERS FOR MEN PATIENTS.

beds. The stables and other outbuildings, with modifications, will be utilized for additional staff quarters, laundry, garage, and workshops. The ample gardens, workshops for woodwork and boot-repairing, out-houses for poultry, pigs, and a herd of cows, will all afford training facilities. The Education Committee has supplied a teacher for the

children in residence. We are indebted to Dr. P. R. McNaught, the Tuberculosis Officer, who is also the Medical Superintendent, for these



FAIRFIELD SANATORIUM, YORK: SLEEPING SHELTERS FOR WOMEN PATIENTS.

notes. The blocks have been lent by the *Yorkshire Herald* and Mr. Catcheside, the photographer.

The College Hubert and Convalescent Home, Belle Vue Plage, Berck-Plage, near Boulogne-sur-Mer, has been opened by Oscar Ph. Masterman Smith, M.A., for British and French boys and girls who are subjects of "surgical" tuberculosis, anæmia, and debility.

An Open-Air Boarding-House is being conducted at Connaught House, Madeira Road, Ventnor, Isle of Wight, by Mrs. Marriott, a former Sister at the Royal National Hospital for Consumption, Ventnor.

At St. Katharine's, Woking, Dr. Alan R. Snowdon has opened an establishment for cases of pulmonary tuberculosis considered unsuitable for ordinary sanatorium management.

Dr. Muthu has just completed twenty-one years of service as Medical Superintendent of the Mendip Hills Sanatorium, and has been the recipient of a presentation from old patients to celebrate the event.



## NOTICES OF BOOKS.

INDUSTRIAL COMMUNITIES FOR THE  
TUBERCULOUS.

THE dispensary, the sanatorium, the hospital, have all been employed as centres for the care, education, and control of tuberculous subjects. These and other agencies established for assisting sufferers smitten with tuberculosis have accomplished much, but their sphere of influence is limited. The tuberculosis problem is a problem of social medicine and must be studied in all its medico-sociological bearings. We are now beginning to realize that in any complete scheme the industrial colony, village settlement, or community centre must have a place. The case for the "colony" has been admirably presented in the new work recently issued by Sir German Woodhead and Dr. P. C. Varrier-Jones, with a preface by Sir Clifford Allbutt.<sup>1</sup> It consists in part of a reprint of communications which have already been published in various journals. The work provides in a great measure a detailed account of the development of the colony idea. The authors write from intimate experience of the evolution of the most complete and up-to-date tuberculosis colony—the Papworth Colony, situated about ten miles from Cambridge. We gather that it is proposed to follow the present volume by a systematic handbook regarding the organization, administration, and general conduct of a tuberculosis colony, with particulars regarding trades and all other matters relating to the treatment and training of consumptives, and the general development and management of a village settlement for such patients and their families. This is one of the most important practical works relating to the tuberculosis problem ever published. It indicates the path for future progress. The "colony" is still in process of evolution, but it marks a great advance in common sense, humanitarian and scientific methods for dealing with tuberculous subjects in all grades. "With the hospital at one end of the scale, the village settlement at the other, and the intermediate rest and temperature houses, open-air shelters, hostels and workshops, each and all ready for his reception, the patient gradually gains confidence; he may be in the lowest grade, but he always keeps his eye, his hopes and his aspirations fixed on the highest as being attainable, not only for himself but for those dependent upon him. He is no longer a valetudinarian but a useful and productive member of society, a man who, though a consumptive, has learned to be a consumptive, to lead the life of a consumptive, and even to enjoy

<sup>1</sup> "Industrial Colonies and Village Settlements for the Consumptive." By Sir German Woodhead, K.B.E., V.D., M.A., M.D., LL.D., Professor of Pathology in the University of Cambridge, etc., and P. C. Varrier-Jones, M.A., M.R.C.S., L.R.C.P., Hon. Medical Officer, Cambridge Tuberculosis Colony, and Tuberculosis Officer for the County of Cambridge, etc., with Preface by Sir Clifford Allbutt, K.C.B., M.A., M.D., LL.D., D.Sc., F.R.C.P., F.R.S., Regius Professor of Physics in the University of Cambridge. Pp. xii + 151. Cambridge: The University Press. 1920. Price 10s. 6d. net.



that life." The work deals particularly with the needs of the "early" and "middle" cases of pulmonary tuberculosis, and indicates the principles and practices of "colony" management. There is also a valuable chapter on the Psychology of the Consumptive. In the concluding chapter the authors honestly admit the inadequacy of sanatorium benefit: "The unfulfilled promise of the enthusiastic but ill-advised politician has left the man in the street disappointed and discomfited. . . . The medical profession, whose advice was doubtless submitted to and accepted by the framers of the Sanatorium Benefit Clause of the National Insurance Act, blundered badly, and we must all take our share of blame for this, for we recognized but half the truth." But with confession comes construction, and the authors of this really informing and enlightening work having explored all departments of this medico-sociological problem now seek to elaborate a scheme on sure foundations.

### SHIBBOLETHS OF TUBERCULOSIS.

Dr. Marcus Paterson, under the old Biblical designation of "Shibboleth," has ingeniously gathered together and serviceably discussed many of the party cries, pet phrases, and unscientific criteria which have in recent years prejudiced educational propaganda, hindered medical progress, and misled doctors, patients, and the general public in the prevention and arrest of tuberculosis.<sup>1</sup> Dr. Paterson is an original and independent thinker, practical in action, direct in speech, and lacking little in boldness and courage. His book must arouse discussion, will probably give rise to disputations, and should certainly not escape some measure of criticism. But in spite of eccentricities and extravagances in language the author has succeeded in exploding myths, discrediting traditions, and denying erroneous doctrines. In tuberculosis work at the present time there is need for an iconoclast and reformer. There are forty-nine chapters, and in each at least one shibboleth is ridiculed. Here are specimens: That it is good to sterilize milk and take no thought about butter, cream, and other milk products; that the provision of sputum flasks will largely prevent tuberculosis; that persons who have or have had tuberculosis should not marry; that tuberculosis is an hereditary disease; that a tubercle bacilli positive examination of sputum is in itself evidence of activity; that a tubercle bacilli negative examination of sputum is evidence of no tuberculosis; that a subcutaneous tuberculin reaction is evidence of active tuberculosis; that once tuberculous, always tuberculous; that you can detect active tuberculosis by means of X-rays; that patients with a cavity are not suitable for treatment by graduated labour; that sanatoria should be built of wood so that they can be periodically burnt down; that the wards of a sanatorium must face the south; that "open-air" is curative treatment for tuberculosis; that pine-trees are necessary in the treatment of tuberculosis; that it is good advice to tell a man suffering from tuberculosis to change his occupation; that inhalations are curative agents in tuberculosis; that cod-liver oil is necessary in

<sup>1</sup> "The Shibboleths of Tuberculosis." By Marcus Paterson, M.D., Medical Superintendent, Metropolitan Asylums Board, Colindale Hospital. Pp. 239. London: John Murray, 50A, Albemarle Street, W. 1. 1920. Price 10s. 6d. net.

the treatment of tuberculosis; that a sea-voyage is good treatment for tuberculosis; that emigration, *i.e.*, a change of climate, is good for tuberculosis; that sputum should be burnt; that good housing will eradicate tuberculosis; that persons suffering from tuberculosis should be segregated; that the death-roll for tuberculosis is falling, the disease dying out, and sanatoria are therefore unnecessary. Dr. Paterson thinks that we are neglectful in using knowledge already accumulated and established. In his "conclusion" he emphasizes the importance of realizing the practice value of such facts as the following: "That so-called 'open-air' treatment is not sanatorium treatment; that 'homes for tuberculosis' are not sanatoria; that 'a little gardening' is neither graduated labour nor auto-inoculation; that auto-inoculation is a natural method of treatment; that inoculation tests of sputum and blood should always be undertaken where microscopical examinations yield negative results; that one or two tubercle bacilli negative microscopical examinations of sputum prove nothing; that practically all cases of pleurisy in young persons are due to tuberculosis, except where there is obvious cause; that inoculation of pleural serum may establish a diagnosis of tuberculosis; that influenza is frequently the first indication of tuberculosis—if auto-inoculation were understood, this would be obvious; that hæmoptysis in young persons is nearly always due to tuberculosis; that it is better to test a tuberculous patient's condition by exercise than to endeavour to ascertain his condition by other methods; that climate, provided it is not actually unsuitable, has little if anything to do with treatment; that it is not wise to fatten a tuberculous person unduly; that the man with the sputum flask is a safer indoor neighbour than the man spitting into his handkerchief or on to the floor; that milk products are as dangerous as milk; that it is unwise to intermingle social matters with medical treatment; that physical signs have not now the importance formerly attached to them; that properly conducted tuberculosis institutions are not dangerous; and, finally, that it is absolutely proved that patients have definitely suffered from tuberculosis whilst their sputum has been repeatedly pronounced microscopically bacilli-free and that, therefore, it can happen again, which means: that it is not necessary to find tubercle bacilli to establish tuberculosis. What, however, is the attitude of mind of the anti-sanatorium critics? It is, that if any persons do well after discharge from a sanatorium, it is because they did not have tuberculosis since tubercle bacilli were not found in their sputum." We have purposely quoted somewhat extensively from this outspoken work in order to indicate its practical and timely character. It is certainly a volume which every tuberculosis officer should read with discrimination and without prejudice.

#### THE CARE OF TUBERCULOUS CRIPPLES.

Sir William Treloar will always occupy a prominent place among the little group of pioneers and philanthropists who have devoted themselves to the cause of crippled tuberculous children. The great institution at Alton, with its marine branch at Hayling Island, stands as a permanent monument of the wisdom and loving sympathy of this far-seeing worker for child betterment. Sir William Treloar has

recently issued a particularly delightful volume of *Reminiscences*.<sup>1</sup> It contains a diary of his year's experiences and impressions as Lord Mayor. There are historical records, humorous stories, and notes personal and public, which make a gathering of rare interest and lasting value. The work contains particulars regarding the launching of the Cripples Fund and the evolution of the Hospital and College at Alton and the seaside centre at Sandy Point, Hayling Island. We are glad to see that reference is made to the fine service rendered by Sir Henry Gauvain, the gifted medical superintendent who has steered the scheme to great success. The whole book is peculiarly attractive, and especially to Londoners. It is effectively illustrated. We commend it to the attention of London's citizens, all Cornishmen, and every reader of this Journal.

#### MALARIA AT HOME AND ABROAD.

Malaria and tuberculosis continue to rank among diseases which are almost world-wide in distribution, wrecking health, happiness, and efficiency among all classes and at all ages, and in great measure still successfully opposing medical science in its efforts for prevention. The fact is in regard to both of these infective diseases we have much that remains inexplicable. Medical practitioners oftentimes meet with malaria in forms which are not altogether unlike tuberculosis. Tuberculosis officers do well to remember that malaria is now being met with in certain parts of this country among children and adults who have never been out of the land. It is essential, therefore, that all medical officers should make themselves thoroughly acquainted with the most up-to-date information available respecting malaria, its distribution and manifestations. This is now available in the fascinating monograph which has recently been written by Colonel S. P. James.<sup>2</sup> This book is one of extraordinary interest, and is the most lucid exposition of the subject yet published. It provides a detailed description of the life-history of the specific pathogenic agent, indicates the numerous factors concerned in the spread of malaria, enumerates all that is necessary to know and to do in carrying out practical work for the study of mosquitoes, outlines the features essential for a reliable survey, furnishes complete accounts of the symptomatology, pathology, and diagnosis of malaria, and finally gives direction for treatment and the prevention and eradication of malaria and the control of mosquitoes. Dr. James's book is no ordinary monograph, but one which will appeal to medical advisers, travellers, and all concerned in scientific endeavours who seek to make the world safe for humanity. The publishers have produced the work in a worthy form,

<sup>1</sup> "A Lord Mayor's Diary, 1906-1907." By William Purdie Treloar. To which is added the Official Diary of Micajah Perry, Lord Mayor 1738-1739. Pp. xxii + 259, with portrait-frontispiece and other illustrations. London: John Murray, 50A, Albemarle Street, W. 1. 1920.

<sup>2</sup> "Malaria at Home and Abroad." By S. P. James, M.D., D.P.H., Lieut.-Colonel I.M.S., retired, Adviser on Malaria to the Ministry of Health, England, and a Medical Officer of the Ministry, etc. Pp. xi + 234, with coloured map and 104 full-page and text figures. London: John Bale, Sons, and Danielsson, Ltd., Oxford House, 83-91, Great Titchfield Street, Oxford Street, W. 1. 1920. Price 25s. net.

and special praise must be given to the illustrations, which are numerous and highly instructive.

### THE INDUSTRIAL CLINIC.

Tuberculosis is to be viewed in great measure as a social disorder dependent on industrial defects and economic deficiencies. The tuberculosis officer must not think too much of the tubercle bacillus and its pathological ravages, but should study mankind in all the activities of industrial life. Professor Collis and his coadjutors have provided a work which will be of immense value to medical advisers and all others engaged in medico-sociological study and service.<sup>1</sup> "The Industrial Clinic" consists of a collection of studies by experts. The following enumeration indicates the wide scope and representative character of the work: "The Medical Examination of the Worker," by Dr. W. F. Dearden, of Manchester; "Choosing the Worker," by B. Muscio, M.A.; "Industrial Efficiency and Fatigue," by Dr. H. M. Vernon, of Oxford; "Hygiene of Working Conditions," by Dr. Alfred Greenwood, County Medical Officer for Kent; "Hygiene of the Individual," by Dr. Lucy Cripps; "Food Values in Relation to Occupation," by Dr. Leonard Hill; "Food at the Works," by M. J. Hall; "The Ambulance Room," by Miss J. F. O'Brien; "Industrial Employment of Women," by Dr. H. B. Adamson. This list indicates the practical value of the book. It should be studied by all who are responsible in any way for the organization and administration of measures aiming at the prevention and arrest of tuberculosis and other morbid states met with in industrial workers.

### A SYNOPSIS OF MEDICINE.

Dr. H. Letheby Tidy has recently issued a remarkably concise, comprehensive, and serviceable Synopsis of Medicine which is sure to be popular.<sup>2</sup> It provides the heavily burdened student and the hard-pressed practitioner with a reliable, up-to-date, condensed presentation of the chief data relating to the principles and practice of medicine. We commend this volume specially to tuberculosis officers, and would suggest that each should make a point of going through the work from cover to cover once every year. Such action would do much to prevent these specialists from lapsing into a groove, and would enable them to maintain that broad outlook which is so necessary for effective service. Dr. Tidy has arranged his Synopsis very much on the lines adopted by Osler in his well-known "Principles and Practice of Medicine." By the use of clear type, numerous headings and subheadings, groupings, and figured sections, the various sections have been rendered exceptionally helpful for ready reference. The chapter on Tuberculosis is a

<sup>1</sup> "The Industrial Clinic: A Handbook dealing with Health in Work." By several writers. Edited by Edgar L. Collis, M.D., M.R.C.P., Talbot Professor of Preventive Medicine in the University of Wales. Pp. vii+239, with illustrations. London: John Bale, Sons, and Danielsson, Ltd., 83-91, Great Titchfield Street, Oxford Street, W. 1. 1920.

<sup>2</sup> "A Synopsis of Medicine." By Henry Letheby Tidy, M.A., M.D., B.Ch., F.R.C.P., Assistant Physician to St. Thomas's Hospital, etc. Pp. xv+952. Bristol: John Wright and Sons, Ltd. 1920. Price 25s. net.

striking example; it runs to forty-five pages, and is so arranged and presented as to impress the reader with the great fact that tuberculosis is to be viewed and dealt with as a general infective disease. In the production of this excellent handbook, author and publishers have loyally co-operated, and all concerned merit congratulations.

#### PATHOLOGIC BIOLOGY IN TUBERCULOSIS.

Ten years have elapsed since Hans Much first issued from his Institute of Immunology in Hamburg a reprint in book form of a year's course of post-graduate lectures in the Eppendorf Hospital, designed as an introduction to the aims and achievement of what he elects to call pathologic biology. Meanwhile the author has made his famous *Erforschungsreise* to Palestine, and on his return was obliged by the exigencies of war to forsake research for clinical practice and to turn his attention to the very serious problem of child tuberculosis in Hamburg. The result may be seen in a notable enrichment of his experience and in an ability, vouchsafed to few, to visualize both the clinical and the pathological sides of the processes of immunity.<sup>1</sup> Much no longer sees the science of medicine in rosy colours. His recent experience makes him desirous of drastic reformation, even of revolution, in clinical methods; deeds need to be based on ideas, and the idea most essential for the practitioner is that of the constant balance in the animal organism between immunity and bacterial virulence, now one, now the other prevailing. Three visible factors are constantly concerned in this purposive balance: the quantity of the infecting agent, the site of its attack, and the capacity for reaction on the part of the attacked organism; but over and above these Much descries an "unknown  $x$ ," needful to elucidate the behaviour of epidemic disease, all purely bacteriological explanation having failed. Periodicity of certain infections he finds agreeing with the waxing and waning of sunspots, confirming an experimental observation by himself and Schmidt that the virulence of these infections becomes obliterated in a magnetic field. The application of these principles to the ravages of acid-fast bacilli makes a chapter of surpassing interest. Leading off with the biology of lepra as the simpler study, Much begins by demolishing the current conception of leprosy as a disease in which immunity is deficient or absent. In lepra-infected households the exposure is intense, and yet many members fail to show any overt manifestation of disease. Natural immunity against lepra must, Much concludes, be greater than that against tubercle, and he considers that the decision of the Bergen Conference in 1909 to recognize lepra as a curable disease was of great import in the growth of a proper understanding of immunology. Lepra is a disease in which toxin production plays a diminutive part, and only an ultra-massive infection with bacilli upsets the balance between immunity and virulence. Hitherto only extreme cases of leprous infection have been recognized as leprous at all. Much satisfied himself in Syria that by employing as a reagent

<sup>1</sup> "Die pathologische Biologie (Immunitätswissenschaft): Eine kurzgefasste Übersicht über die biologischen Heil- und Erkenntnisverfahren für Ärzte und Studierende." By Professor Hans Much, Director of the Tuberculosis Research Institute in Hamburg. Third Edition, completely revised. Pp 323, with 6 plates and 7 figures. Leipzig: Curt Kabitzsch. 1920. Price sewn, M. 45.60; bound, M. 54.

the separate extracts of the bacterial corpses, he could demonstrate the existence of a large amount of subclinical leprous infection. Passing on to the far more complex condition of tubercle infection and immunity, Much argues very cogently for the identification of the bovine and human types of bacilli as the same agent differing only in its degree of adaptation to its surroundings. The bovine type is commonly regarded as a rare infection in adults; but so, he says very truly, is the human type. The human being who meets for the first time in adult life a massive infection with the human type of tubercle bacillus dies of it with hardly an effort to defend himself, as Deycke showed in Stamboul and Römer in the Argentine. The greater the general prevalence of tubercle, the greater the individual immunity and the smaller the percentage mortality. Much goes on to distinguish between the immunity resident in the blood fluid, the content of which varies almost from day to day, and the far more constant and effective immunity of the tissue cells, which acts as a reserve capable of being judiciously increased from the floating supply. On the basis of this conception he has built up a method of diagnosis and controlled treatment by means of antigens, derived from different layers of the bacterial corpses, which he finds in practice to be vastly more potent than the blundering exhibition of tubercle toxin as an immunizing agent. In fact, he will have nothing of old tuberculin. His book is a signal example of clarity of thought and expression, and should ensure a trial in this country of the partial-antigen method.

#### A CRUSADE AGAINST CHILD TUBERCULOSIS.

Out of his war-time clinical experience Much, the biologist, has written a little pamphlet for the times, addressed to the practitioner, on Germany's most pressing problem, that of the prevalence and increase of tuberculosis among the youthful population.<sup>1</sup> He laments the divorce of research and clinical practice in Teutonic countries, pointing out with engaging fairness that in England the relation of the clinic to the research institute has long been better understood. A rapid sketch is given of the symptoms, subjective and objective, upon which the diagnosis of tuberculosis, in the child must be securely based, concluding with a plea for the consistent and universal treatment of glandular tuberculosis to take the place of the almost universal policy of masterly inactivity until the infection has progressed beyond the easy reach of remedies at all. Specific medication, in the forefront the employment of partial-antigens, and ray treatment are the agents on which Much chiefly relies, which we may not unkindly paraphrase as chemical warfare and *Flammenwerfer*. It remains to be seen whether his own countrymen will follow him in a campaign in which new offensive weapons are sadly needed.

#### TUBERCULIN AS A SOUVERAIN REMEDY.

"Bandelier and Roepke" has gone through ten editions since 1908; it has been translated into French, Italian, Japanese, Portuguese,

<sup>1</sup> "Die Kindertuberkulose: Ihre Erkennung und Behandlung: Ein Taschenbuch für praktische Ärzte." By Professor Hans Much. Pp. 35. Leipzig: Curt Kabitzsch. 1920. Price sewn, M. 3.50; bound, M. 4.80.



Russian, and Spanish, and two of the earlier editions have appeared in English. The book has brought upon the two writers that curse of successful authorship, so feelingly described by Sir Michael Foster as a millstone round the neck for life—namely, the necessity of keeping their work up to date. And in the present instance this has been done with great conscientiousness.<sup>1</sup> Nowhere else can be found so fair and full a statement of the claims and actual achievement of such new medicaments as Friedmann's turtle remedy, the chemotherapy of Strauss and Gräfin, and the ingenious antigens of Deycke and Much. It redounds greatly to the credit of the authors that many of their readers will still desire to test these remedies for themselves after having read their epitaphs in this book. Whether tuberculin now has so few opponents in Germany as the authors infer, we have no means of judging. Analogy with medical opinion in this country would suggest the reverse. But no one has any right to suggest that the specific treatment of tuberculosis should *not* be the concern of every practitioner without having marked, inwardly digested, and rejected the extraordinarily convincing case made out for it by Bandelier and Roepke.

#### MANUALS FOR MEDICAL ADVISERS AND WORKS OF REFERENCE.

"The Extra Pharmacopœia"<sup>2</sup> of Martindale and Westcott is one of the indispensable reference books which every medical practitioner must possess. The first volume of the seventeenth edition has just been issued, thoroughly revised and brought up-to-date. It contains much new information regarding recently introduced drugs, formulæ for the preparation of various organic chemical compounds, vaccines, and serums, and other pharmacological and therapeutical matters of practical importance to doctors and pharmacists. Particulars are given of the various tuberculins of which no less than two hundred different kinds have been introduced since Koch made his first preparation. As is indicated in the preface, "the subject became amazingly complex, and perhaps the 'clean sweep' which the war has effected will be for good." It is pointed out that to replace the 'T.R.' of Koch, Dr. R. W. Allen has produced a preparation termed Tuberculin 'M,' which is devoid of toxicity, but capable of provoking defunct focal reaction and exciting the formation of adequate antibodies when given in sufficient dose. The preparations to which predominance is given are Old Tuberculin, Albumose-free Tuberculin, Tuberculin 'M,' Bacillary Emulsion, and Beraneck's Tuberculin. In the suggestive section, "Therapeutic Index of Diseases," under the head of phthisis, nearly a page is devoted to the enumeration of drugs and other measures which have been recommended from time to time.

The Bureau of the Census of the Department of Commerce of the

<sup>1</sup> "Lehrbuch der spezifischen Diagnostik und Therapie der Tuberkulose, für Ärzte und Studierende." By Dr. Bandelier and Professor Roepke. Tenth Edition. Pp. 508, with two coloured plates and six illustrations. Leipzig and Würzburg: Curt Kabitzsch. 1920. Price sewn, M. 48; bound, M. 57 60.

<sup>2</sup> "The Extra Pharmacopœia." By W. Harrison Martindale, Ph.D., Ph Ch., F.C.S., and W. Wynn-Westcott, M.B., D.P.H. Seventeenth Edition. Vol. 1. Pp. xl + 1115. London: H. K. Lewis and Co., Ltd., 28, Gower Place, W.C. 1. 1920. Price 27s. net.



United States have just issued the first edition of a Standard Nomenclature of Diseases.<sup>1</sup> It has been prepared under the supervision of Dr. William H. Davis, Chief Statistician for Vital Statistics. "As cumulative experience is valuable only in direct proportion to its volume and correlative possibilities, uniformity of expression concerning morbid conditions, similar in character, is highly essential to a cumulative grouping of data relating to the incidence of disease and death." This statement appearing in the Preface is very true, and certainly applies to tuberculosis. The work will be of much service in America, and deserves the consideration of public health and other authorities in this country.

A new and eighth edition of the late Dr. Austin Flint's well-known and much valued guide to physical diagnosis has recently been issued, carefully revised and brought up to date by Dr. Henry C. Thacher.<sup>2</sup> This manual is popular in America, and deserves recognition in this country. Recent developments in laboratory service have discouraged the acquisition of skill in the direct methods of clinical medicine. The cultivation of powers for diagnosis is neglected. Modern methods for the making of clinicians are not proving altogether satisfactory. A study of such a work as that originally designed by Dr. Flint indicates the value of bedside procedures for the diagnosis of disease, and clinical methods in the practice of medicine. The book is one intended to guide students and graduates along lines of simplicity, directness, exactness, and with skill and understanding in the interpretation of physical signs, both in health and disease. The description of the examination of the chest is excellent. There is a good section on the detection of pulmonary tuberculosis. The standard classification adopted by the American National Association for the Study and Prevention of Tuberculosis is given, and the outline may be reproduced here with advantage: "*Incipient (Favorable)*.—Slight initial lesion in the form of infiltration, limited to the apex or a small part of one lobe. No tuberculous complications. Slight or no constitutional symptoms (particularly including gastric or intestinal disturbances, or rapid loss of weight). Slight or no elevation of temperature, or acceleration of pulse at any time during the twenty-four hours, especially after rest, expectoration usually small in amount, or absent. Tubercle bacilli may be present or absent. *Moderately advanced*.—No marked impairment of function, either local or constitutional, localized consolidation, moderate in extent, with little or no evidence of destruction of tissue, or disseminated fibroid deposits. No serious complications. *Far advanced*.—Marked impairment of function, local and constitutional, localized consolidation intense; or disseminated areas of softening; or serious complications, miliary tuberculosis." The book is well printed on good paper, and is effectively illustrated.

<sup>1</sup> "Standard Nomenclature of Diseases and Pathological Conditions, Injuries, and Poisonings for the United States." First Edition. Pp. 347. Published for the Bureau of the Census of the Department of Commerce (Sam. L. Rogers, Director) at Government Printing Office, Washington. 1920.

<sup>2</sup> "A Manual of Physical Diagnosis." By Austin Flint, M.D., LL.D., Late Professor of the Principles and Practice of Medicine and of Clinical Medicine in Bellevue Hospital Medical College. Eighth Edition, revised by Henry C. Thacher, M.S., M.D., Assistant Professor of Clinical Medicine in the College of Physicians and Surgeons of Columbia University. Pp. 362, with illustrations. Philadelphia: Lea and Febiger, 706-710, Sansom Street. 1920. Price \$3.00.

Almost every medical practitioner is now the possessor of some form of motor, and to all such we commend the 1920 edition of the Catalogue of Motor Accessories issued by the well-known firm of Brown Brothers, Ltd. It consists of 575 pages, giving particulars of all forms of motor equipment, and it is plentifully illustrated.<sup>1</sup>

"The Doctor's Reference List" has recently been issued in its eleventh edition. It contains in compact, conveniently-arranged form, directories to all kinds of institutions for dealing with every class of private patient. There is a list of sanatoria arranged under counties, but it is scarcely up to date, and clearly the charges given need revision.<sup>2</sup>

"The Michelin Guide: The Motorist's Vade-Mecum," compiled and published by the Michelin Tyre Company, is now in its fifth year of issue.<sup>3</sup> It is a marvellous volume, full of all sorts of data relating to every part of the British Isles. There are maps of all the important towns, and many excursions. Medical advisers, whether motorists or not, will find this a volume which should have place among their valued works of reference.

*The Indian Medical Record* is arranging for the issue of a "Special Tuberculosis Number" in December.<sup>4</sup>

<sup>1</sup> Copies of the "Illustrated Catalogue of Motor Accessories" can be obtained from Brown Brothers, Ltd., Brown's Buildings, Great Eastern Street, E.C. 2.

<sup>2</sup> "The Doctor's Reference List" is printed and published by George Pulman and Sons, Ltd., Thayer Street, Manchester Square, W. 1.

<sup>3</sup> "The Michelin Guide: The Motorist's Vade-Mecum." Pp. 824, with numerous maps. London: The Michelin Tyre Company, Ltd., 81, Fulham Road, S.W. 3. Price 5s. net. There are also five other Michelin Guides now published dealing with France; Belgium, Luxemburg and Rhineland; Spain; the sunny countries (Algeria, Tunis, Corsica, and the French Kiviera); and Morocco.

<sup>4</sup> *The Indian Medical Record* is published monthly at 2, Horokinner Tagore Square, Corporation Street, Calcutta. The London Agents are Baillière, Tindall and Cox, 8, Henrietta Street, Covent Garden, W.C. 2.

#### WANTED—BACK NUMBERS.

THE Publishers would be glad to secure a limited number of the issues of the BRITISH JOURNAL OF TUBERCULOSIS as stated below. Subscribers who have any of these numbers are invited to write stating which issues they have to dispose of. The published price will be given for all Journals purchased.

Vol. XIV., No. 3.

Vol. XIII., No. 2.

Vol. XII., No. 4.

Vol. XI., Nos. 3 and 4.

Vol. VII., No. 2.

Vol. VI., No. 2.

Vol. IV., Nos. 2 and 3.

Vol. III., Nos. 2, 3, and 4.

Vol. II., No. 4.

Vol. I., Nos. 1, 2, and 4.

## PREPARATIONS AND APPLIANCES.

### THE "THERMECON" APPLIANCES.

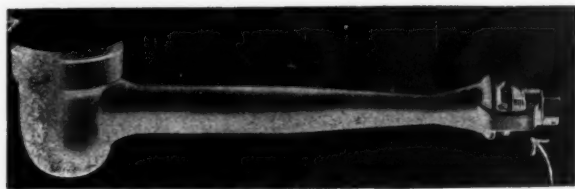
MESSRS. J. ROWELL and Sons of Newcastle-upon-Tyne, the well-known firm of gas specialists, have introduced several new forms of appliance for heating by gas which will be of much practical service in hospitals and sanatoria as well as in the domestic work of dwelling houses.<sup>1</sup>

The "THERMECON" GAS RING is constructed on the Bunsen high



THE "THERMECON" GAS RING.

velocity tube system. Even when used with flame turned low, it maintains its effectiveness and does not smoke or smell, but keeps the hottest part of the flame in contact with the vessel which is being heated. The combustion appears to take place at the horizontal

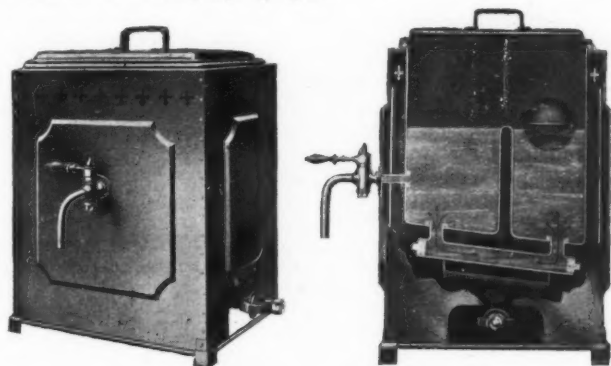


THE "THERMECON" BURNER.

orifice and all secondary air, after supporting combustion, passes through the flame and is superheated. This novel heating ring is not only exceedingly efficient but economical. It makes for rapid heating

<sup>1</sup> Full particulars regarding the "Thermecon" gas appliances can be obtained on application to the makers, Messrs. J. Rowell and Sons, Byron Street Works, Newcastle-upon-Tyne.

and lessened gas bills. The price is only 4s. 6d., and the chief features are shown in the accompanying figure.



THE "THERMECON" WATER SUPPLIER.

The "THERMECON" GAS BURNER is another appliance which will prove useful in institutions. The general form is indicated in the annexed illustration. It provides efficient flame contact at all pressures, is fitted with brass injector and regulator, and can be fitted for the heating of all kinds of vessels.



THE "THERMECON" WASHING COPPER.

The "THERMECON" WATER SUPPLIER, although designed primarily for hotels, refreshment rooms, and the like, will also be appreciated in sanatoria and other institutions where time and labour-saving appliances are desired. It is a "no-trouble" boiling water supplier providing a pint of boiling water every quarter of a minute, and can thus supply thirty gallons an hour. It has a higher efficiency than most geysers, and can be easily cleaned. With hard waters it proves very effective, as the tubes do not "fur" readily owing to the high velocity at which the water passes through them.

The "THERMECON" WASHING COPPER will also prove invaluable in facilitating laundry work in hospitals and sanatoria.

These "Thermeccon" novelties only require to be known to be valued and constantly used.

## COLLOSOL IODINE.

Colloid preparations of antimony, argentum, arsenic, bismuth, bromoform, cuprum, ferromalt, ferromanganese, ferrum, hydrargyrum, iodine, manganese, palladium, quinine, selenium, and sulphur have all been employed as therapeutic agents, and oftentimes with much advantage. One of the most serviceable, particularly in tuberculous cases, is COLLOSOL IODINE.<sup>1</sup> This is now available in aqueous suspension and as paste, oil, and ointment. The aqueous solution (1 in 500) appears to be of real value in many cases. It is contended that the whole of the colloidal iodine is absorbed, and enters into molecular combination with protein, to form an iodo-amino acid. We have used collosol iodine by oral administration with apparent advantage. Iodine is known to be of benefit in many cases of tuberculosis, and especially where there is also a syphilitic taint. The Collosol Iodine Preparations certainly merit thorough trial.

## HYGIENIC FOOTWEAR.



All patients or others engaging in work or exercise in the open air for the maintenance or restoration of health should give special heed to the question of footwear. A wise medical superintendent of a sanatorium will not only pay attention to the condition of the feet of his patients, but will make inquiries regarding their shoes and boots. In keeping the feet dry, maintaining a sure foothold, and for economy, PHILLIPS' "MILITARY" SOLES AND HEELS have justly won a great reputation. During the war they were subjected to a severe testing and came through triumphantly. The object of this note is to direct the attention of medical advisers, patients, and all other wise people to the advantages of these ingenious and reliable rubber attachments for ordinary boots and shoes.<sup>2</sup>

## HYGIENIC AND THERAPEUTIC PREPARATIONS.

The question of beverages has often to be discussed with tuberculous patients. Milk is the great drink in sanatoria. Alcohol in practically all its forms is excluded, and doubtless wisely so. Our attention has recently been directed to CYDRAX, which is a non-alcoholic beverage. It is a non-intoxicating form of cider, and is made from carefully selected apples, without the addition of preservatives. A scientifically directed process of pasteurization is employed. It provides a sharp, acid, cooling drink which is particularly suited to the needs of many patients. "Cydrax" is a beverage which is rapidly becoming popular, and it would seem to be likely to prove an excellent drink for many tuberculous and tuberculously inclined subjects.<sup>3</sup>

<sup>1</sup> Particulars regarding Collosol Iodine and other Colloid preparations for therapeutical purposes may be obtained on application to British Colloids, Ltd., The Crookes' Laboratories, 22, Chemes Street, Tottenham Court Road, W.C. 1.

<sup>2</sup> Full particulars regarding prices, sizes, etc., can be obtained on application to boot dealers and repairers or to the headquarters of Phillips' Patents, Ltd., 142, Old Street, E.C. 1.

<sup>3</sup> Full particulars regarding "Cydrax" may be obtained from the manufacturers, H. Whiteway and Co., Ltd., The Orchards, Whimpe, Devon.

DISINFECTANTS are essential agents for the conduct of personal hygiene and the maintenance of domestic, hospital, sanatorium and public sanitation. A fine series of germicidal, deodorant and antiseptic preparations suitable for the use of tuberculous subjects and all places where such cases dwell or are undergoing treatment, are now supplied by the well-known firm of Edward Cook and Co., Ltd.<sup>1</sup> We would direct special attention to "COFECTANT" MEDICAL FLUID, excellent for almost all purposes where a reliable non-toxic, convenient and inexpensive agent is to be used for disinfection in connection with human patients. "KLONDOL" is a British-made Liquor Cresoli Saponatus, and is excellent for the sterilization of sputum flasks, surgical instruments, and the like. "ASEPSO" soap is effective and safe as a cleanser for the head and for the hygienic management of the skin generally. "COFECTANT" TOILET AND BATH SOAPS only need to be used to be approved. The "COFECTANT" LOZENGES are useful little preparations for administration in disorders of the mouth and throat.

"VINOLIA" SOLIDIFIED GLYCERINE will be of value to sanatorium patients. It is a preparation indeed which will be helpful to everyone both in health and in sickness; but we commend it specially to all whose work or pleasures keep them in the open. This dainty form of solid glycerine provides a pleasant, portable, protective and sedative application for the skin. We would also strongly recommend the use of the "VINOLIA" MEDICATED SKIN SOAP as a particularly effective and agreeable cleansing agent.<sup>2</sup>

"ANTI-LARIA" is the designation given to various preparations which should be of much service both at home and abroad in dealing with insect pests, and particularly in securing the destruction of the larvæ of mosquitoes. "Anti-Laria" in fluid form is spread over the surface of water in the breeding-places, and can be sprayed over middens and garbage heaps. "Anti-Laria" is available in three forms—jelly, cream, and soap. These preparations will be found of value in sanatoria, and for all who seek to pursue a hygienic life in the open air.<sup>3</sup>

"SEL DE HUNT" is a pleasant granular preparation containing such well-provided antacids as carbonates of calcium, magnesium, and sodium together with oil of peppermint.<sup>4</sup> It has proved of much value in dealing with certain cases of gastric disorder, and seems likely to be of service in relieving some of the dyspeptic conditions commonly met with in tuberculous subjects, especially those associated with pain, acidity, pyrosis and flatulence.

Many tuberculous subjects are sufferers from chronic constipation. In these cases special care is necessary in the administration of aperients. One of the best and safest preparations is Liquid Paraffin. A particularly reliable and pleasant form is now on the market under the name of NUJOL. This is an excellent intestinal lubricant and

<sup>1</sup> Full particulars regarding all "Cofectant" preparations can be obtained on application to the manufacturers, Edward Cook and Co., Ltd., The Soapery, Bow, E. 3

<sup>2</sup> Full particulars regarding "Vinolia" hygienic and cosmetic preparations may be obtained on application to Vinolia Company, Ltd., Bebington, near Birkenhead.

<sup>3</sup> "Anti-Laria" preparations are made by Edward Cook and Co., Ltd., The Soapery, Bow, E. 3.

<sup>4</sup> "Sel de Hunt" is supplied by the Anglo-French Drug Co., Ltd., 238A, Gray's Inn Road, W.C. 1, who will send specimens and particulars on application.

laxative for both children and adults. It is a specially selected and purified paraffin.<sup>1</sup>

GLUTIODIN is a new iodized vegetable protein which provides a reliable and non-irritant means for the administration of iodine.<sup>2</sup> It is a dark yellow impalpable powder, and can be supplied in convenient tablet form. This preparation seems likely to be useful in certain cases of tuberculosis when the use of iodine will be of benefit.

AGOTAN, or phenyl-quinoline-carboxylic acid, is a new synthetic preparation recently introduced as an agent which increases the excretion of uric acid and urates, and promises to be of service in the treatment of gout, rheumatism, and other arthritic troubles.<sup>3</sup>

SODIUM MORRHUATE is now being recommended for the treatment of tuberculosis. It is used in a 3 per cent. solution for subcutaneous injection. A reaction usually follows the introduction. In cases of pulmonary tuberculosis, reduction in the pyrexia, diminution in expectoration and cough, and steady gain in weight have been noted.<sup>4</sup>

PECTO<sup>5</sup> is a new non-toxic disinfectant. It is an aqueous solution of alkaline hypochlorites with a trace of free chlorine, and is said to be twelve times as powerful as pure carbolic acid. It is clearly a preparation which will be useful in sanatorium work.

<sup>1</sup> "Nujol" is supplied by the Anglo-American Oil Co., Ltd., 36, Queen Anne's Gate, Westminster, S.W., from whom specimens and particulars can be obtained on application.

<sup>2</sup> Glutiodin is supplied by Mellin's, 48, Regent Street, W. 1.

<sup>3</sup> Agotan is made by Howards and Sons, Ltd., the works of which are at Ilford, and London Offices at 16, Cross Street, Hatton Garden, E.C. 1.

<sup>4</sup> Specimens and particulars regarding Sodium Morrhuate, which is now available in sterilized solution put up in glass vials, can be obtained from Evans, Sons, Lescher and Webb, Ltd., 56, Hanover Street, Liverpool.

<sup>5</sup> Fecto is prepared by Parke, Davis and Co., Beak Street, Regent Street, W. 1.



## THE OUTLOOK.

### TUBERCULOSIS IN LONDON.

THE recently issued Annual Report of Dr. W. H. Hamer, County Medical Officer of Health and School Medical Officer to the London County Council, contains much valuable data relating to the prevalence of tuberculosis in London.<sup>1</sup> A Special Report is furnished by Dr. F. N. Kay Menzies regarding arrangements for dealing with the disease. The population of the L.C.C. area for the middle of 1919 is placed at 4,358,309. The deaths from pulmonary tuberculosis in the civil population during 1919 numbered 5,332, a decrease of 1,716 from the previous year. Tuberculosis other than phthisis caused 992 deaths. The number of "primary" cases notified during 1919 was 15,587—12,356 pulmonary, and 3,231 other forms of tuberculosis. With regard to the prevalence of tuberculosis in school-children it is stated that 486 cases of phthisis were detected at routine medical examination, forming 0·2 per cent. of all children examined. In addition 550 (0·3 per cent.) were found to be the subjects of other tuberculous conditions. Dr. Menzies' report presents valuable information and statistics bearing on the tuberculosis problem generally. The following tables give some idea of the prevalence of tuberculosis and the dimensions of the problem:

TABLE INDICATING DEATHS FROM TUBERCULOSIS REGISTERED  
FROM 1911-1918 (INCLUSIVE).

Year.	Pulmonary.		Non-Pulmonary.		Total.	
	London.	England and Wales.	London.	England and Wales.	London.	England and Wales.
1911	6,249	39,232	1,761	13,888	8,010	53,120
1912	6,287	38,083	1,457	11,908	7,744	50,051
1913	6,033	37,055	1,441	12,421	7,474	49,476
1914	6,476	38,637	1,521	11,661	7,997	50,298
1915	6,875	41,050	1,681	12,512	8,556	53,562
1916	6,491	40,747	1,514	12,151	8,005	52,398
1917	6,908	42,152	1,575	12,609	8,483	54,761
1918	7,048	46,077 <sup>2</sup>	1,398	11,996 <sup>2</sup>	8,446	58,073 <sup>2</sup>

<sup>1</sup> "Report of the County Medical Officer of Health and School Medical Officer for the Year 1919." Pp. 102+68. Issued from 2, Savoy Hill, Victoria Embankment, W.C. 2, and published by P. S. King and Son, Ltd., 2 and 4, Great Smith Street, Victoria Street, Westminster, S.W. 1. 1920. Price 5s.

<sup>2</sup> Including non-civilian deaths. In 1917 these numbered 961 pulmonary and 212 other tuberculosis. The figures for 1915 onwards relate to civilians only (except those for England and Wales in 1918).

TABLE OF PRIMARY NOTIFICATIONS OF TUBERCULOSIS FOR ENGLAND AND WALES FOR FOUR YEARS (1914-1918).

England and Wales (including London).	Phthisis.	Other Tuberculosis.
Year.		
1914	81,159	24,366
1915	73,538	22,864
1916	72,479	23,777
1917	73,654	22,096
1918	72,741	19,391
Totals	373,571	112,494

It would seem from these returns that between 50,000 and 60,000 persons each year perish from tuberculosis, and of these about 8,000 persons die from the disease in London. If it be assumed that the life of a tuberculous patient is about five years from the onset of the first symptoms, then we can estimate that there are from 450,000 to 500,000 persons suffering from tuberculosis at the present time in England and Wales, and that of these 70,000 to 80,000 are dwellers in the County of London. In all probability these figures represent a considerable underestimate. It is pointed out that the decline in the death-rate from tuberculosis up to recent years has been so remarkable that some authorities still doubt if the decline is a real one. It is, however, generally believed that the proportion of people who die from tuberculosis is now considerably less than formerly. Dr. Menzies attempts to indicate reasons explaining the cause of this decline. With regard to the suggestion that the tubercle bacillus is undergoing a slowly progressive diminution of virulence, it is held that "there is no positive evidence to show that the tubercle bacillus has lost any of its virulence, and the fact that the disease has behaved in a totally different way in Ireland is very much against the theory of diminished virulence of the bacillus." In meeting the suggestion that the intrinsic capacity of the race for resisting tuberculosis is increasing, the following statement appears: "Admitting that there has been some immunity established amongst nations like those where the disease has been prevalent for many centuries, yet it is clear that the process must have been a very gradual one, and obviously this theory cannot possibly account for the behaviour of the death-rate, either in England or in Ireland, during the last half-century." The question of a gradual change in the distribution of the population from rural to urban conditions is considered. In 1810 only about 20 per cent. of the population was urban, whereas in 1910 the proportion had risen to something like 80 per cent. "The theory here is that the liability to absorb small doses of tubercle bacilli increases with the prevalence of the disease and the density of the population. Therefore during this period there was going on, *pari passu* as it were, an increase in the prevalence of the disease and a corresponding increase of the minimal immunizing doses of infection from the tuberculous to

the non-tuberculous population. This process, while it is suggested by advocates of the theory that it greatly increased the amount of the fatality of the disease in the early part of the last century (1800-1850), led later on to an increase in the resisting power of the succeeding generations, and so in the second half of the century to a decrease in the prevalence and fatality of the disease. If this is a correct theory, then the decline in the prevalence may lead to a point where there will also be a corresponding decline in the minimizing process, and in time this would be followed by a rise in the prevalence and mortality of the disease, unless we can by other means stem the rise of the tide. Thus the rate of mortality from tuberculosis may be subject to rhythmic changes of the natural curve of the rate extending over a long series of years, and we may be simply passing through a low part on one of these waves." Amidst the doubt existing on these much-discussed points it seems clear that the improvement in social conditions and manner of life have been powerful factors in influencing the decline in the death-rate from tuberculosis. Chief among conditions making for betterment may be noted the following: (a) Removal of damp, dirty, insanitary houses, including narrow streets, alleys, culs-de-sac, etc.; all the conditions of housing, in fact, which constitute what are termed insanitary areas, large and small. (b) Improved conditions of occupation, including shorter working hours, higher wages, better and more abundant food-supply, etc. (c) Improvement of the milk-supply. (d) Removal of subsoil dampness, etc. Probably the chief factor which, concurrently with those already indicated, has been exercising the predominant, though unrecognized, influence is what Sir Arthur Newsholme has spoken of as "the segregation of consumptives, especially of advanced cases, in general hospitals, poor-law infirmaries, asylums, and other public institutions." This view has been opposed by Bulstrode and others, and Dr. Menzies concludes: "The evidence up to the year 1908 clearly suggested that if segregation was to be credited with a share in bringing about decline of the phthisis death-rate, the rate of that decline should be augmented during the next ten years. In fact, the reverse of this has proved to be the case: the rate of decline, instead of increasing, has slowed down and apparently is now rising, and it seems clear, therefore, that other factors must have operated." The so-called migrating theory is discussed, and with regard to it a cautious opinion is expressed: "There can be no doubt that the general improvement in the health conditions of the people must have exercised some beneficial effect directly and indirectly in reducing the tuberculosis death-rate." Many critics, however, experience some difficulty in accepting the further statement, that the exodus of tuberculous patients from this country during the years when the tuberculosis death-rate consistently fell was such that, as this exodus gradually ceased, it was associated with an arrest of the decline of the tuberculosis death-rate. This theory would, of course, imply that the retention of that proportion of the tuberculous population, whatever it was, in this country which formerly emigrated has been more than sufficient to counter-balance all the other agencies at work which should make for the continued decline of the tuberculosis death-rate, and more particularly those special measures such as institutional treatment which have been put into operation since 1900 for the welfare of the tuberculous patients. Reference is also made to the view of Professor Karl Pearson, that

heredity plays a most important part in the perpetuation and spread of phthisis. He seems to think that "natural selection may have done more for racial health in this matter than medical science." Dr. Menzies has rendered notable service in providing so complete a study of the various hypotheses which have directed thought and action. His own conclusions merit reproduction here: "After a careful study of the various theories which have been put forward to explain the decline of the tuberculosis death-rate during the latter half of the last century, the student may well be forgiven for taking the view that not one of them can be said to afford an entirely satisfactory explanation. Most of those who have studied the subject succumb to the temptation of starting a theory of their own. I do not propose to say more than that, in my opinion, there are substantial grounds for the belief that the data available for the study of the subject, particularly the certification of deaths from tuberculosis, are not sufficiently reliable to enable one to make a fair comparison between such periods as 1850-1885, and 1885-1920. In the latter period the great advances which have taken place in the facilities available for making a more accurate diagnosis of the presence of the disease, and therefore its differentiation from other diseases, are sufficient to render any comparative study of the statistics for the two periods very difficult. Furthermore, it always happens that when a disease attracts a great deal more attention, both from the medical faculty and the public, it is suddenly discovered to be much more prevalent than was formerly thought to be the case. The only positive statement, therefore, to which I should be inclined to commit myself at present would be that the general improvement in the conditions of life of the working classes, both at home and at work, and the beneficial effects resulting from the better control of such important predisposing factors as the contraction of the infectious fevers in early life, cannot have failed to produce decidedly favourable influences upon the incidence and progressively fatal character of the disease." The report also discusses the mortality-rate from tuberculosis in the two sexes, and the rôle of the tubercle bacillus. Details of the complete tuberculosis scheme as suggested at a meeting of the League of Red Cross Societies at Cannes in April, 1919, are also presented. Much serviceable information is afforded regarding the provision of tuberculosis dispensaries in London. There are now thirty-three such centres with two branch dispensaries, staffed by forty-one tuberculosis officers, of whom thirty-two are full-time and nine part time appointments. It is interesting to learn that formerly many of these officers wished to treat every tuberculosis patient coming for assistance, but that now this attitude has been modified, and this for two reasons: (1) Tuberculosis officers realize more fully that it is essential, if maximum efficiency is to be secured, that the general practitioner should not be excluded from the treatment of this disease. (2) They recognize that their treatment of the individual case does not yield materially better results than the treatment by general practitioners. Dr. Menzies provides a series of criticisms and outspoken comments upon certain matters arising out of the survey, and these deserve the serious consideration of all responsible in any way for the organization, administration, and conduct of tuberculosis work in London. At the present time the institutional accommodation provides 1,800 beds—(a) advanced cases, 500; (b) observation and emergency, 200; (c) surgical, 200; (d)

moderately advanced, 600; (e) early, 600; (f) children, 650. It is estimated that at least an additional 700 beds are needed at once. At an estimate of 2,100 beds for adults at £130 per bed per annum, and 650 beds for children at £80 per bed per annum, the total cost of beds would be £325,000. Deducting cost of beds provided by M.A.B. and contributions from funds of London Insurance Committee, the net cost to L.C.C. is put at £58,000. An outline is given of provisions desirable for (1) observation beds, (2) acute emergency, etc., cases, (3) middle and chronic progressive cases, and (4) advanced cases. The tuberculosis problem in London is surrounded by almost unsurmountable difficulties, but the work of Dr. W. H. Hamer and Dr. F. N. Kay Menzies should go far to encourage the development of tuberculosis service on sane and scientific lines.

The Public Health Committee of the London County Council has this summer issued a detailed report on tuberculosis in London, with particulars of the L.C.C. scheme and a statement regarding immediate and early prospective needs regarding further accommodation for tuberculous cases.

#### NOTES AND RECORDS.

Professor Sir Robert Philip, in the July issue of the *Edinburgh Medical Journal*, describes the modern outlook on the treatment of tuberculosis.<sup>1</sup> The old-world pessimism regarding phthisis is placed in contrast with present-day hopefulness, and it is shown that "a large part of ordinary practice remains based on the old Hippocratic conception." "Thinking along the older lines, the practitioner finds it difficult to accept as indications of tuberculosis the earlier expressions of bacillary action. Hence has developed the fallacious habit of labelling many of the finer features of early disease as 'pretuberculous,' or 'predisposing,' if recognized at all. The diagnosis of tuberculosis is too infrequently not accepted, until a point is reached when the diagnosis is of little therapeutic interest or value. Even then attention is apt to be restricted to evident phenomena in *one* organ rather than to the advance and distribution of an infection which is steadily poisoning the system. When therapeutic measures or Nature herself has stayed the process at one or other obvious point there is a tendency to drop interest and consider the matter closed." Sir Robert Philip outlines a scheme of reconstruction in thought and action. Much that is suggestive is presented in a description of the analogy between tuberculosis and syphilis. Great stress is laid on the question of systemic intoxication. It is good to see that the official attitude is strongly condemned: "three months—doled out to most cases in this country under the Insurance Act—is hopelessly inadequate for the purpose of lasting arrest. For the most part it is waste of time, money, and effort. The practice is based on a misunderstanding of the natural history of the disease and the needs of the local lesion and systemic infection." We venture also to quote Sir Robert Philip's concluding section on "Observation and Research": "Much remains to be done. There is need for continuous intensive investigation, clinical and experimental. There

<sup>1</sup> See "The Modern Outlook on Treatment of Tuberculosis." By Sir Robert Philip, M.D., LL.D., in *Edinburgh Medical Journal*, New Series, Vol. XXV., No. 1, July, 1920. Pp. 1-14. Edinburgh: Oliver and Boyd.

are many problems—biological and clinical—pressing for solution. The men who have capacity and material must be given time and opportunity. Care must be taken that their energy is not frittered away on matters which have little interest or value, for example, on more routine duty which might perfectly well be overtaken by a trained typist or laboratory assistant. The undergraduate must be trained on modern lines, so that whether he develop private practice—medical or surgical—or take a post in the expanding Health Service, he may be in a position to cope effectively with the changing aspects of the disease. His attention must be diverted from the last stage of tuberculous disease, whether in the form of advanced pulmonary, genito-urinary, abdominal, or other tuberculosis, to its completer consideration as an infective process. Starting from the initial infection, he must be *trained to think of the earliest clinical and pathological manifestations*, their great tractability, and the possibilities which await the patient if these are not checked. His earliest object-lesson should be the guinea-pig with its local sore at the point of inoculation, and the gradual spread through the various groups of lymphatic glands to the finished picture when the several viscera are involved. If thoughts regarding the occurrence of tuberculous in the human subject and its further developments be thus guided along scientific lines, we may confidently expect that tuberculosis, as a killing and maiming disease, will be largely outmanœuvred."

In the last issue of the *Journal of Comparative Pathology and Therapeutics* appeared a highly suggestive article on "The Virulence of Tubercle Bacilli Isolated from Bovine Lesions in India," by A. L. Sheather, B.Sc., M.R.C.V.S., Director and First Bacteriologist of the Imperial Bacteriological Laboratory, Muktesar, India.<sup>1</sup> The researches described seem to show that the strains of tubercle bacilli infecting cattle in India possess a distinctly lower degree of virulence than tubercle bacilli isolated from cattle in Europe.

In the recently issued "Year-Book of the Association of Tuberculosis Clinics of the Greater City of New York," edited by Josephine L. Toering, R.N., the Executive Secretary, will be found an historical review of tuberculosis work in New York, a report for 1919, map showing position of the clinics, and a membership list of the Association.<sup>2</sup>

The National Association for the Prevention of Tuberculosis holds its Eighth Annual Conference in St. George's Hall, Liverpool, on October 7-9, inclusive.<sup>3</sup>

The staff of the Hospital for Consumption and Diseases of the Chest, Brompton, S.W. 3 (near South Kensington Station), have arranged for an Autumn Session of Lectures on Tuberculosis, to be given on Tuesdays and Fridays, at 8 p.m. The following is the programme: Oct. 12, (1) "Anatomy and Physiology of the Chest," by Dr. A. Hope Gosse; Oct. 15, (2) "Distribution and Incidence of Tuberculosis," by

<sup>1</sup> See the *Journal of Comparative Pathology and Therapeutics*, Vol. XXXIII., Part II., June, 1920, pp. 73-103. Edited by Sir John McFadyean and Sir Stewart Stockman, and published by W. and A. K. Johnston, Ltd., Edinburgh. Price 3s. 6d. quarterly. Annual subscription 14s.

<sup>2</sup> "The Year-Book of the Association of Tuberculosis Clinics" is issued by the New York Tuberculosis Association, 10, East 39th Street, New York City.

<sup>3</sup> Full particulars regarding the Liverpool Conference of the National Association for the Prevention of Tuberculosis may be obtained on application to the Secretary, 20, Hanover Square, London, W. 1



Dr. L. S. T. Burrell; Oct. 19, (3) "Immunity and Infection," by Dr. A. L. Punch; Oct. 22, (4) "Causes of Tuberculosis," by Dr. W. B. Knobel; Oct. 26, (5) "General Signs and Symptoms of Pulmonary Tuberculosis," by Dr. W. J. Fenton; Oct. 29, (6) "The X-Ray Evidence," by Dr. Stanley Melville; Nov. 2, (7) "Nose and Throat in Relation to Tuberculosis," by Sir James Dundas-Grant; Nov. 5, (8) "Pathological Anatomy of Pulmonary Tuberculosis," by Dr. A. L. Punch; Nov. 9, (9) "Principles of Treatment of Pulmonary Tuberculosis," by Dr. G. E. Beaumont; Nov. 12, (10) "Nursing of Pulmonary Tuberculosis in Hospital," by Dr. W. B. Knobel; Nov. 16, (11) "Tuberculosis in Children," by Dr. R. C. Wingfield; Nov. 19, (12) "Surgical Tuberculosis," by Mr. J. E. H. Roberts; Nov. 23, (13) "Principles of Social Work," by Miss Marx; Nov. 26, (14) "Sanatorium Treatment and After-Care," by Dr. R. C. Wingfield; Nov. 30, (15) "Home Nursing of Tuberculosis and Dispensary Management," by Miss Redl; Dec. 3, (16) "Prevention of Tuberculosis," by Dr. W. B. Knobel; Dec. 7, (17) "Economic Factors in Tuberculosis," by Miss Marx; Dec. 10, (18) "History of Tuberculosis," by Dr. L. S. T. Burrell. The fee for the Course is £1 1s.; Single Lecture, 2s.; fee for Course with Demonstrations and Examination, £2 2s. Demonstrations will be given in Laboratory, Bacteria and Staining; in Museum, Pathological Specimens; in Wards, Nursing; in Dispensary and Out-Patient Departments.

The *Journal of the American Medical Association* for July 24 contained the following interesting list of existing journals devoted to tuberculosis. It is also stated that before the war other tuberculosis journals were published in France and Italy, but no copies have appeared recently.

*American Review of Tuberculosis*, 2419, Greenmount Avenue, Baltimore. Monthly; \$3.

*Journal of the Outdoor Life*, 381, Fourth Avenue, New York. Monthly; \$1.50.

*Tubercle*, London. Monthly; Twenty-five shillings.

*British Journal of Tuberculosis*, 151, West 25th Street, New York. Quarterly; \$1.25.

*Archivos Españoles de Tisiología*, Diputación, 211, Barcelona, Spain. Thirty pesetas.

*Revista de Higiene y de Tuberculosis*, Juan de Austria, 12, Valencia, Spain. Twelve pesetas.

*Revista de Tuberculosis*, Calle Colón, 7, Valencia, Spain. Ten pesetas.

*Revista de Tisiología*, Murcia, Spain. Twelve pesetas.

*Tuberculose*, 's Gravenhage, Holland.

*Zeitschrift für Tuberculose*, Dorrienstrasse 16, Leipzig, Germany. Thirty marks.

*Beiträge zur Klinik der Tuberkulose*, Würzburg, Germany.

*Internationales Centralblatt für die gesamte Tuberkulose Forschung*, Würzburg, Germany.

*Tuberculosis*, Milan, Italy.

*Tuberculosis, Internationales Centralbureau zur Bekämpfung der Tuberkulose*, Berlin, Germany. (This is the organ of the International Tuberculosis Society.)



## INDEX

- ALTITUDE** and phthisis, 114  
**ARTIFICIAL** pneumothorax, 31  
**Berry, M.**, X-rays in the early diagnosis of pulmonary tuberculosis, 12  
**CHEMOTHERAPY**, 57  
**CHILDREN**, tuberculous, 49  
**CLIMATE**, 76  
**CONSUMPTIVES**, occupations for, 154  
**CONTACT** infection, 4  
**Craig-MacGown, J.**, muscular changes occurring in pulmonary tuberculosis, 106  
**Crofton, W. M.**, the next stage in the tuberculosis movement, 19  
**Cummins, S. L.**, racial differences in susceptibility to tuberculosis, 160  
**Dart, G. H.**, criticism of the London scheme for the prevention of tuberculosis, 64  
**Davies, E. G.**, the rôle of the American Red Cross in the tuberculosis campaign in France during the Great War, 120  
**Delépine, S.**, infection and predisposition in tuberculosis, 60  
**Dixon, G. B.**, the discharged soldier and sanatorium treatment, 67  
**EPIDEMIOLOGY** of phthisis, 72, 112  
**Evans, D. W.**, the campaign against tuberculosis in Wales, 166  
**FARM** colonies, 65  
**FAZAKERLEY** Sanatorium, 25  
**Gauvain, Sir H.**, the care of tuberculous children, 49  
**Giles, J. D.**, some general impressions of the conference of the National Association for the Prevention of Tuberculosis, 21  
**Gordon, W.**, the epidemiology of phthisis, 112  
**Guthrie, D.**, tuberculosis of the ear, 164  
**HELIO THERAPY**, 36, 58  
**Hooper, V.**, the City of Liverpool Sanatorium for Tuberculosis at Fazakerley, 25  
**HOSPITALS** for tuberculosis, 65  
**HOUSING**, 33  
**INFECTION** and immunity, 32  
**INTERNATIONAL** Society of Pneumothorax Artificialis, 126  
**KING GEORGE'S** Sanatorium for Sailors, 141  
**KING'S** Sanatorium, 44  
**Knopf, S. A.**, tuberculosis and the life and work of Sir William Osler, 97  
**LIFE** assurance and tuberculosis, 1  
**Martin, T. H.**, a hospital school for the treatment of surgical tuberculosis in children, 145  
**May, O.**, some aspects of the tuberculous problem in life assurance, 1  
**MORTALITY** experience, 10  
**Muir, W. A.**, the Von Pirquet reaction in pulmonary tuberculosis, 115  
**NATIONAL** Association for the Prevention of Tuberculosis, 21  
**NEW YORK** Tuberculosis Association, 71  
**NORTH-WESTERN** Tuberculosis Society, 29  
**OPEN-AIR** schools, 65  
**PAPWORTH** shelter, 38  
**PRINCESS MARY'S** Hospital for Tuberculous Children, Margate, 127  
**PULMONARY** tuberculosis, 9  
 — artificial pneumothorax in, 31  
 — muscular changes in, 106  
 — and Von Pirquet reaction, 115  
 — X-rays in, 12  
**Roatta, G. B.**, reformation in sanatorium management, 16  
**SANATORIUM** Altein-Arosa, 30  
 — management, 16  
**Shaw, H. B.**, pulmonary tuberculosis *versus* consumption, 104  
**SOCIETY** of Superintendents of Tuberculosis Institutions, 70  
**STERILIZERS**, 80  
**SUBSOIL** and phthisis, 114  
**TREGODDICK** Home for Consumptives, 71  
**TRELOAR** Cripples' Hospital, 49  
**TRUDEAU** School of Tuberculosis, 29  
**TUBERCULOSIS** of bones and joints, 7  
 — of cervical glands, 135  
 — in childhood, 90, 145  
 — colony, 44  
 — genito-urinary, 8  
 — of glands, 7  
 — infection and predisposition in, 60  
 — London scheme, 64  
 — movement, 19  
 — and public health, 129  
 — and school teachers, 92  
 — Society's conference, 140  
 — terminology, 93  
 — in Wales, 166  
 — among women, 90  
**TUBERCULOUS** children, 49  
 — family history, 2  
 — pleurisy, 9  
**VACCINE** treatment, 75  
**Varrier-Jones, P. C.** and Woodhead, Sir G., principles involved in the selection of occupations for consumptives, 154  
**VON PIRQUET** reaction, 115  
**WINDS** and phthisis, 113  
**X-RAY** examination, 130  
**X-RAYS** and pleuro-pulmonary disease, 32

## Ante-natal and post-natal feeding of mothers

The importance of feeding is the directly and indirectly  
and the importance of feeding is the directly and indirectly

### promoting Breast feeding

The importance of feeding is the directly and indirectly  
and the importance of feeding is the directly and indirectly

CLAXO

Full Cream Dried Milk

THE CLAXO GAZETTE

A paper published weekly  
Published by the Claxo Gazette Co.  
Claxo, N. H.

CLAXO GAZETTE CO., CLAXO, N. H.



